

NPL Dialog Search 09/931254 date: 12/2/06

Trying 31060000009998...Open

DIALOG INFORMATION SERVICES  
PLEASE LOGON:

\*\*\*\*\*

ENTER PASSWORD:

\*\*\*\*\*

Welcome to DIALOG

Dialog level 05.13.02D

Reconnected in file OS 02dec06 10:22:14

>>>PROFILE is in a suspended state.

>>>Contact Dialog Customer Services to re-activate it.

\* \* \*

>>> 77 does not exist

>>> 233 does not exist

>>>2 of the specified files are not available

SYSTEM:OS - DIALOG OneSearch

File 15:ABI/Inform(R) 1971-2006/Dec 01  
(c) 2006 ProQuest Info&Learning

File 9:Business & Industry(R) Jul/1994-2006/Dec 01  
(c) 2006 The Gale Group

File 810:Business Wire 1986-1999/Feb 28  
(c) 1999 Business Wire

File 275:Gale Group Computer DB(TM) 1983-2006/Dec 01  
(c) 2006 The Gale Group

File 476:Financial Times Fulltext 1982-2006/Nov 21  
(c) 2006 Financial Times Ltd

File 610:Business Wire 1999-2006/Dec 01  
(c) 2006 Business Wire.

\*File 610: File 610 now contains data from 3/99 forward.  
Archive data (1986-2/99) is available in File 810.

File 624:McGraw-Hill Publications 1985-2006/Dec 01  
(c) 2006 McGraw-Hill Co. Inc

\*File 624: Homeland Security & Defense and 9 Platt energy journals added  
Please see HELP NEWS624 for more

File 636:Gale Group Newsletter DB(TM) 1987-2006/Dec 01  
(c) 2006 The Gale Group

File 621:Gale Group New Prod.Annou.(R) 1985-2006/Nov 29  
(c) 2006 The Gale Group

File 613:PR Newswire 1999-2006/Dec 01  
(c) 2006 PR Newswire Association Inc

\*File 613: File 613 now contains data from 5/99 forward.  
Archive data (1987-4/99) is available in File 813.

File 813:PR Newswire 1987-1999/Apr 30  
(c) 1999 PR Newswire Association Inc

File 16:Gale Group PROMT(R) 1990-2006/Dec 01  
(c) 2006 The Gale Group

File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group

File 634:San Jose Mercury Jun 1985-2006/Nov 30  
(c) 2006 San Jose Mercury News

File 148:Gale Group Trade & Industry DB 1976-2006/Nov 30

(c)2006 The Gale Group  
 File 20:Dialog Global Reporter 1997-2006/Dec 02  
 (c) 2006 Dialog  
 File 35:Dissertation Abs Online 1861-2006/Nov  
 (c) 2006 ProQuest Info&Learning  
 File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
 (c) 2002 The Gale Group  
 \*File 583: This file is no longer updating as of 12-13-2002.  
 File 65:Inside Conferences 1993-2006/Dec 01  
 (c) 2006 BLDSC all rts. reserv.  
 File 2:INSPEC 1898-2006/Nov W3  
 (c) 2006 Institution of Electrical Engineers  
 File 474:New York Times Abs 1969-2006/Dec 02  
 (c) 2006 The New York Times  
 File 475:Wall Street Journal Abs 1973-2006/Dec 02  
 (c) 2006 The New York Times  
 File 99:Wilson Appl. Sci & Tech Abs 1983-2006/Sep  
 (c) 2006 The HW Wilson Co.  
 File 348:EUROPEAN PATENTS 1978-2006/ 200648  
 (c) 2006 European Patent Office  
 \*File 348: For important information about IPCR/8 and forthcoming  
 changes to the IC= index, see HELP NEWSIPCR.  
 File 349:PCT FULLTEXT 1979-2006/UB=20061116UT=20061109  
 (c) 2006 WIPO/Thomson  
 \*File 349: For important information about IPCR/8 and forthcoming  
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 File 347:JAPIO Dec 1976-2006/Aug(Updated 061130)  
 (c) 2006 JPO & JAPIO

Set Items Description

Cost is in DialUnits  
 ? b 410

02dec06 10:22:16 User242899 Session D578.5  
 \$0.04 0.007 DialUnits File15  
 \$0.04 Estimated cost File15  
 \$0.04 0.007 DialUnits File9  
 \$0.04 Estimated cost File9  
 \$0.01 0.007 DialUnits File810  
 \$0.01 Estimated cost File810  
 \$0.04 0.007 DialUnits File275  
 \$0.04 Estimated cost File275  
 \$0.01 0.007 DialUnits File476  
 \$0.01 Estimated cost File476  
 \$0.01 0.007 DialUnits File610  
 \$0.01 Estimated cost File610  
 \$0.04 0.007 DialUnits File624  
 \$0.04 Estimated cost File624  
 \$0.04 0.007 DialUnits File636  
 \$0.04 Estimated cost File636  
 \$0.04 0.007 DialUnits File621  
 \$0.04 Estimated cost File621  
 \$0.01 0.007 DialUnits File613  
 \$0.01 Estimated cost File613  
 \$0.01 0.007 DialUnits File813  
 \$0.01 Estimated cost File813  
 \$0.04 0.007 DialUnits File16

\$0.04 Estimated cost File16  
       \$0.04     0.007 DialUnits File160  
 \$0.04 Estimated cost File160  
       \$0.01     0.007 DialUnits File634  
 \$0.01 Estimated cost File634  
       \$0.04     0.007 DialUnits File148  
 \$0.04 Estimated cost File148  
       \$0.01     0.007 DialUnits File20  
 \$0.01 Estimated cost File20  
       \$0.03     0.007 DialUnits File35  
 \$0.03 Estimated cost File35  
       \$0.02     0.007 DialUnits File583  
 \$0.02 Estimated cost File583  
       \$0.03     0.007 DialUnits File65  
 \$0.03 Estimated cost File65  
       \$0.06     0.007 DialUnits File2  
 \$0.06 Estimated cost File2  
       \$0.03     0.007 DialUnits File474  
 \$0.03 Estimated cost File474  
       \$0.03     0.007 DialUnits File475  
 \$0.03 Estimated cost File475  
       \$0.03     0.007 DialUnits File99  
 \$0.03 Estimated cost File99  
       \$0.04     0.007 DialUnits File348  
 \$0.04 Estimated cost File348  
       \$0.03     0.007 DialUnits File349  
 \$0.03 Estimated cost File349  
       \$0.08     0.007 DialUnits File347  
 \$0.08 Estimated cost File347  
       OneSearch, 26 files, 0.186 DialUnits FileOS  
 \$0.81 Estimated cost this search  
 \$0.81 Estimated total session cost   0.186 DialUnits

File 410:Dialog Comm.-of-Interest Newsl/Jul (c) 2006 Dialog

Set	Items	Description
?	set hi %%%;set hi %%%	
	HILIGHT set on as '%%%'	
	%%HILIGHT set on as '%%'	
?	b 15, 9, 810, 275, 476, 610, 275, 476, 624,636, 621, 613, 813, 16, 160, 634, 148, 20, 77, 35, 583, 65, 2, 233, 474, 475, 99,348,349,347	
>>>	77	does not exist
>>>	233	does not exist
>>>	2	of the specified files are not available
	02dec06 10:28:01 User242899 Session D578.6	
	\$0.00	0.107 DialUnits File410
	\$0.00	Estimated cost File410
	\$1.60	TELNET
	\$1.60	Estimated cost this search
	\$2.41	Estimated total session cost   0.293 DialUnits

SYSTEM:OS - DIALOG OneSearch  
 File 15:ABI/Inform(R) 1971-2006/Dec 01  
       (c) 2006 ProQuest Info&Learning  
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(c) 1999 Business Wire

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File 476:Financial Times Fulltext 1982-2006/Nov 21  
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\*File 624: Homeland Security & Defense and 9 Platt energy journals added  
Please see HELP NEWS624 for more

File 636:Gale Group Newsletter DB(TM) 1987-2006/Dec 01  
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File 621:Gale Group New Prod.Annou.(R) 1985-2006/Nov 29  
(c) 2006 The Gale Group

File 613:PR Newswire 1999-2006/Dec 01  
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\*File 613: File 613 now contains data from 5/99 forward.  
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File 813:PR Newswire 1987-1999/Apr 30  
(c) 1999 PR Newswire Association Inc

File 16:Gale Group PROMT(R) 1990-2006/Dec 01  
(c) 2006 The Gale Group

File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group

File 634:San Jose Mercury Jun 1985-2006/Nov 30  
(c) 2006 San Jose Mercury News

File 148:Gale Group Trade & Industry DB 1976-2006/Nov 30  
(c)2006 The Gale Group

File 20:Dialog Global Reporter 1997-2006/Dec 02  
(c) 2006 Dialog

File 35:Dissertation Abs Online 1861-2006/Nov  
(c) 2006 ProQuest Info&Learning

File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
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\*File 583: This file is no longer updating as of 12-13-2002.

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(c) 2006 Institution of Electrical Engineers

File 474:New York Times Abs 1969-2006/Dec 02  
(c) 2006 The New York Times

File 475:Wall Street Journal Abs 1973-2006/Dec 02  
(c) 2006 The New York Times

File 99:Wilson Appl. Sci & Tech Abs 1983-2006/Sep  
(c) 2006 The HW Wilson Co.

File 348:EUROPEAN PATENTS 1978-2006/ 200648  
(c) 2006 European Patent Office

\*File 348: For important information about IPCR/8 and forthcoming  
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(c) 2006 WIPO/Thomson

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changes to the IC= index, see HELP NEWSIPCR.

File 347:JAPIO Dec 1976-2006/Aug(Updated 061130)  
(c) 2006 JPO & JAPIO

Set	Items	Description
-----	-------	-------------

?		
		PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? ds		
>>>		No sets currently exist
? show files		
File 15:	ABI/Inform(R)	1971-2006/Dec 01
	(c) 2006 ProQuest Info&Learning	
File 9:	Business & Industry(R)	Jul/1994-2006/Dec 01
	(c) 2006 The Gale Group	
File 810:	Business Wire	1986-1999/Feb 28
	(c) 1999 Business Wire	
File 275:	Gale Group Computer DB(TM)	1983-2006/Dec 01
	(c) 2006 The Gale Group	
File 476:	Financial Times Fulltext	1982-2006/Nov 21
	(c) 2006 Financial Times Ltd	
File 610:	Business Wire	1999-2006/Dec 01
	(c) 2006 Business Wire.	
File 624:	McGraw-Hill Publications	1985-2006/Dec 01
	(c) 2006 McGraw-Hill Co. Inc	
File 636:	Gale Group Newsletter DB(TM)	1987-2006/Dec 01
	(c) 2006 The Gale Group	
File 621:	Gale Group New Prod. Annou. (R)	1985-2006/Nov 29
	(c) 2006 The Gale Group	
File 613:	PR Newswire	1999-2006/Dec 01
	(c) 2006 PR Newswire Association Inc	
File 813:	PR Newswire	1987-1999/Apr 30
	(c) 1999 PR Newswire Association Inc	
File 16:	Gale Group PROMT(R)	1990-2006/Dec 01
	(c) 2006 The Gale Group	
File 160:	Gale Group PROMT(R)	1972-1989
	(c) 1999 The Gale Group	
File 634:	San Jose Mercury	Jun 1985-2006/Nov 30
	(c) 2006 San Jose Mercury News	
File 148:	Gale Group Trade & Industry DB	1976-2006/Nov 30
	(c) 2006 The Gale Group	
File 20:	Dialog Global Reporter	1997-2006/Dec 02
	(c) 2006 Dialog	
File 35:	Dissertation Abs Online	1861-2006/Nov
	(c) 2006 ProQuest Info&Learning	
File 583:	Gale Group Globalbase(TM)	1986-2002/Dec 13
	(c) 2002 The Gale Group	
File 65:	Inside Conferences	1993-2006/Dec 01
	(c) 2006 BLDSC all rts. reserv.	
File 2:	INSPEC	1898-2006/Nov W3
	(c) 2006 Institution of Electrical Engineers	
File 474:	New York Times Abs	1969-2006/Dec 02
	(c) 2006 The New York Times	
File 475:	Wall Street Journal Abs	1973-2006/Dec 02
	(c) 2006 The New York Times	
File 99:	Wilson Appl. Sci & Tech Abs	1983-2006/Sep
	(c) 2006 The HW Wilson Co.	
File 348:	EUROPEAN PATENTS	1978-2006/ 200648

(c) 2006 European Patent Office  
File 349:PCT FULLTEXT 1979-2006/UB=20061116UT=20061109

(c) 2006 WIPO/Thomson  
File 347:JAPIO Dec 1976-2006/Aug(Updated 061130)

(c) 2006 JPO & JAPIO  
? 15, 9, 810, 275, 476, 610, 275, 476, 624, 636, 621, 613, 813, 16, 160, 634,  
148, 20NFTXTCOR is set ON as an alias for 77, 35, 583, 65, 2, 233, 474, 475,  
99, 348, 349, 347

>>>Unrecognizable Command

?

?

?

? S server (s) client (s) (( (data (2n) process??? ?) (1n) (relay??? ? (1n)  
apparatus)) or (proxy (1n) server))

Processing

Processed 10 of 26 files ...

Processing

Processed 20 of 26 files ...

Processing

Processing

Processing

Completed processing all files

2205433 SERVER

2983815 CLIENT

18168105 DATA

20292427 PROCESS??? ?

599384 RELAY??? ?

2266876 APPARATUS

8 DATA(2N)PROCESS??? ?(1N)RELAY??? ?(1N)APPARATUS

363776 PROXY

2205433 SERVER

19052 PROXY(1N)SERVER

S1 3706 SERVER (S) CLIENT (S) (( (DATA (2N) PROCESS??? ?) (1N)

(RELAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))

? s S ( ( (data (2n) process??? ?) (1n) (relay??? ? (1n) apparatus)) or  
(proxy (1n) server)) (s) (control (5n) (servlet or object or program or  
application))

>>>Unmatched parentheses

? S ( ( (data (2n) process??? ?) (1n) (relay??? ? (1n) apparatus)) or (proxy  
(1n) server)) (s) (control (5n) (servlet or object or program or application)))

>>>Unmatched parentheses

? S (((data (2n) process??? ?) (1n) (relay??? ? (1n) apparatus)) or (proxy (1n)  
server)) (s) (control (5n) (servlet or object or program or application)))

>>>Unmatched parentheses

? S ( ( (data (2n) process??? ?) (1n) (relay??? ? (1n) apparatus)) or (proxy  
(1n) server))

Processing

Processed 10 of 26 files ...

Processing

Processing

Processed 20 of 26 files ...

Processing

Completed processing all files

18168105 DATA

20292427 PROCESS??? ?

599384 RELAY??? ?

2266876 APPARATUS

```

      8 DATA(2N) PROCESS??? ?(1N) RELAY??? ?(1N) APPARATUS
    363776 PROXY
    2205433 SERVER
      19052 PROXY(1N) SERVER
    S2 19060 ( ( DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N)
      APPARATUS)) OR (PROXY (1N) SERVER))
? s (control (5n) (servlet or object or program or application))
Processing
Processed 10 of 26 files ...
Processing
Processed 20 of 26 files ...
Processing
Completed processing all files
    12438076 CONTROL
      8794 SERVLET
    1916356 OBJECT
    9709485 PROGRAM
    8778783 APPLICATION
    S3 360065 (CONTROL (5N) (SERVLET OR OBJECT OR PROGRAM OR
      APPLICATION))

```

? ds

```

Set      Items  Description
S1      3706  SERVER (S) CLIENT (S) (( DATA (2N) PROCESS??? ?) (1N) (RE-
      LAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S2      19060  ( ( DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARAT-
      US)) OR (PROXY (1N) SERVER))
S3      360065  (CONTROL (5N) (SERVLET OR OBJECT OR PROGRAM OR APPLICATION-
      ))

```

? ds

```

Set      Items  Description
S1      3706  SERVER (S) CLIENT (S) (( DATA (2N) PROCESS??? ?) (1N) (RE-
      LAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S2      19060  ( ( DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARAT-
      US)) OR (PROXY (1N) SERVER))
S3      360065  (CONTROL (5N) (SERVLET OR OBJECT OR PROGRAM OR APPLICATION-
      ))

```

? s s1(s)s2(s)s3

```

      3706  S1
      19060 S2
      360065 S3
    S4      73  S1(S)S2(S)S3

```

? rd

>>>Duplicate detection is not supported for File 348.

>>>Duplicate detection is not supported for File 349.

>>>Duplicate detection is not supported for File 347.

>>>Records from unsupported files will be retained in the RD set.

S5 69 RD (unique items)

? s s5 and pd<20010801

>>>File 15 processing for PD= : PD=20010801

>>> started at PD=710000 stopped at PD=910617

>>>File 9 processing for PD= : PD=20010801

```

>>> started at PD=871119 stopped at PD=970822
>>>File 810 processing for PD= : PD=20010801
>>> started at PD=850116 stopped at PD=911123
>>>File 275 processing for PD= : PD=20010801
>>> started at PD=140103 stopped at PD=870413
>>>File 476 processing for PD= : PD=20010801
>>> started at PD=19820102 stopped at PD=19881015
>>>File 624 processing for PD= : PD=20010801
>>> started at PD=104 stopped at PD=910425
>>>File 636 processing for PD= : PD=20010801
>>> started at PD=19880101 stopped at PD=19940324
>>>File 621 processing for PD= : PD=20010801
>>> started at PD=00000000 stopped at PD=19910208
>>>File 813 processing for PD= : PD=20010801
>>> started at PD=100000 stopped at PD=9009
>>>File 16 processing for PD= : PD=20010801
>>> started at PD=19900101 stopped at PD=19950623
Processing
>>>File 160 processing for PD= : PD=20010801
>>> started at PD=2103 stopped at PD=770314
Processed 10 of 26 files ...
>>>File 634 processing for PD= : PD=20010801
>>> started at PD=12/7/04 stopped at PD=890509
>>>File 148 processing for PD= : PD=20010801
>>> started at PD=140105 stopped at PD=820114
Processing
>>>One or more prefixes are unsupported
>>> or undefined in one or more files.
>>>File 583 processing for PD= : PD=20010801
>>> started at PD=100001 stopped at PD=870824
Processed 20 of 26 files ...
>>>File 474 processing for PD= : PD=20010801
>>> started at PD=101111 stopped at PD=721108
>>>File 475 processing for PD= : PD=20010801
>>> started at PD=191111 stopped at PD=790719
>>>File 99 processing for PD= : PD=20010801
>>> started at PD=DEC.1200 stopped at PD=19910204
Processing
>>>File 348 processing for PD= : PD=20010801
>>> started at PD=78 stopped at PD=980522
>>>File 347 processing for PD= : PD=20010801
>>> started at PD=197610 stopped at PD=19830411
Processing
Completed processing all files
        69 S5
        29122348 PD<20010801
        S6 32 S5 AND PD<20010801
? s (client (3n) (request??? ? or transaction? ?))
>>>Unmatched parentheses
? s (client (3n) (request??? ? or transaction? ?))
Processing
Processed 20 of 26 files ...
Completed processing all files
        2983815 CLIENT
        5764864 REQUEST??? ?
        4911289 TRANSACTION? ?
S7 50388 (CLIENT (3N) (REQUEST??? ? OR TRANSACTION? ?))

```



? ds

Set	Items	Description
S1	3706	SERVER (S) CLIENT (S) (( (DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S2	19060	( ( (DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S3	360065	(CONTROL (5N) (SERVLET OR OBJECT OR PROGRAM OR APPLICATION-))
S4	73	S1(S)S2(S)S3
S5	69	RD (unique items)
S6	32	S5 AND PD<20010801
S7	50388	(CLIENT (3N) (REQUEST??? ? OR TRANSACTION? ?))

? s s4 and s7

	73	S4
	50388	S7
S8	40	S4 AND S7

? s s6 and s7

	32	S6
	50388	S7
S9	24	S6 AND S7

? ds

Set	Items	Description
S1	3706	SERVER (S) CLIENT (S) (( (DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S2	19060	( ( (DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S3	360065	(CONTROL (5N) (SERVLET OR OBJECT OR PROGRAM OR APPLICATION-))
S4	73	S1(S)S2(S)S3
S5	69	RD (unique items)
S6	32	S5 AND PD<20010801
S7	50388	(CLIENT (3N) (REQUEST??? ? OR TRANSACTION? ?))
S8	40	S4 AND S7
S9	24	S6 AND S7

? show files; ds

File 15:ABI/Inform(R) 1971-2006/Dec 01  
(c) 2006 ProQuest Info&Learning

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(c) 2006 The Gale Group

File 810:Business Wire 1986-1999/Feb 28  
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 (c) 1999 The Gale Group  
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 (c) 2006 San Jose Mercury News  
 File 148:Gale Group Trade & Industry DB 1976-2006/Nov 30  
 (c)2006 The Gale Group  
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 File 348:EUROPEAN PATENTS 1978-2006/ 200648  
 (c) 2006 European Patent Office  
 File 349:PCT FULLTEXT 1979-2006/UB=20061116UT=20061109  
 (c) 2006 WIPO/Thomson  
 File 347:JAPIO Dec 1976-2006/Aug(Updated 061130)  
 (c) 2006 JPO & JAPIO

Set	Items	Description
S1	3706	SERVER (S) CLIENT (S) (( (DATA (2N) PROCESS??? ?) (1N) (RE- LAY??? ? (1N) APPARATUS)) OR (PROXY (1N) SERVER))
S2	19060	(( (DATA (2N) PROCESS??? ?) (1N) (RELAY??? ? (1N) APPARAT- US)) OR (PROXY (1N) SERVER))
S3	360065	(CONTROL (5N) (SERVLET OR OBJECT OR PROGRAM OR APPLICATION- ))
S4	73	S1(S)S2(S)S3
S5	69	RD (unique items)
S6	32	S5 AND PD<20010801
S7	50388	(CLIENT (3N) (REQUEST??? ? OR TRANSACTION? ?))
S8	40	S4 AND S7
S9	24	S6 AND S7

? t s9/3,k/1-24

9/3,K/1 (Item 1 from file: 348)  
 DIALOG(R)File 348:EUROPEAN PATENTS  
 (c) 2006 European Patent Office. All rts. reserv.

01351712

Caching of files during loading from a distributed file system  
 Zwischenspeicherung von Dateien eines verteilten Dateisystems während des  
 Ladens  
 Mise en antememoire de fichiers pendant leur chargement depuis un systeme

distribue de fichiers

PATENT ASSIGNEE:  
 ALCATEL, (201871), 54, rue la Boetie, 75008 Paris, (FR), (Applicant  
 designated States: all)

INVENTOR:  
 Vermeulen, Christophe, Rue de la Halle 7, 4690 Roclenge-S-Geer, (BE)

LEGAL REPRESENTATIVE:  
 Urlichs, Stefan, Dipl.-Phys. et al (92291), Alcatel Intellectual Property  
 Department, 70430 Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 1154356 A1 011114 (Basic)

APPLICATION (CC, No, Date): EP 2000440130 000509;

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CLAIMS A	(English)	200146	817
SPEC A	(English)	200146	2858
Total word count - document A			3675
Total word count - document B			0
Total word count - documents A + B			3675

...SPECIFICATION server includes a cache memory in which the last loaded files are temporarily stored. If **%%client%% 11** **%%requests%%** a file that has already been loaded and therefore is still contained in the cache...

...the file is already in the cache, it will be immediately transferred, 28, to the **%%client%%**. If the **%%requested%%** file is not in the cache, proxy server 12 will send a "send file" request...

...network are generally referred to as file servers or Web servers.

A block diagram of **%%proxy%%** **%%server%% 12** in the first embodiment is shown in Fig. 3. **%%Proxy%%** **%%server%% 12** has a first interface 31, which is connected to the **%%client%%**, a second interface 33, which is connected to the network, a cache memory 35, a...

...elements are interconnected by a bus system 36. Processor 32 controls the operation of the **%%proxy%%** **%%server%%**. It executes a **%%control%%** **%%program%%** stored in main memory 34 and containing a sequence of control instructions, and is programmed...

...described in connection with Fig. 2, i.e., requesting the hash code from the remote **%%server%%** using the address of the file **%%requested%%** by the **%%client%%**, comparing the cache contents with the hash code of the requested file, and storing previously...

...the cache memory. The cache memory may be implemented on a hard disk of the **%%proxy%%** **%%server%%**, for example.

In another embodiment, shown in Fig. 4, the cache memory is implemented in...

...CLAIMS computed via the MD5 algorithm.

7. A method as claimed in claim 1 wherein the **%%client%%** (11) sends a **%%request%%** to a server (14) from which the file is to be loaded, wherein the server...

9/3,K/2 (Item 2 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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01318489

A network portal system and methods  
Netzwerkzugangssystem und -verfahren  
Portique de reseau et procede associe  
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...SPECIFICATION network portal system includes a web-top manager. The web-top manager receives a content **%%request%%** from a **%%client%%** system. According to one embodiment of the present invention, each content request includes a content identifier of the content **%%requested%%** by the **%%requesting%%** **%%client%%** system. Optionally, the content **%%request%%** includes a **%%client%%** system identifier

and/or a content type. Alternatively, a process on the network portal system...

...top manager renders the requested content into a page that can be displayed by the requesting client system and this page is returned to the requesting client system. Thus, the network portal system with its different aspects allows a client to get...is processed by the universal content broker system; and an interface adapted to notify registered client systems when content of interest to the registered client systems is created by the universal...

...having different types and different protocols to a single user interface includes:  
receiving a content request from a client system the content request comprising a content identifier;  
selecting a content provider associated with the content identifier from a...

...different communication schemes, said content being information which is transmittable over said network, each said client system supporting a predetermined communication scheme of said plurality of different communication schemes, said network portal system comprising:

- a) webtop means for receiving a content request from a client system, said request comprising a content indicator being indicative of the content, and an indicator of the requesting client system, said client system indicator specifying the communication scheme supported by said client system,
- b) universal content broker...

...system,

- c) said webtop means being further adapted for rendering the retrieved content to said requesting client system according to the communication scheme of said requesting client system.

The invention comprises also a method for linking, via a communication network, a plurality...

...plurality of different communication schemes, said method comprising the following steps:

- a) receiving a content request from a client system, said request comprising a content indicator being indicative of the content, and an indicator of the requesting client system, said client system indicator specifying the communication scheme supported by said client system,
- b) selecting a provider...

...said requested content from said accessed provider system,

- e) rendering the retrieved content to said requesting client system according to the communication scheme of said requesting client system.

Thus, the network portal concept according to the invention with its different aspects allows...

...create content objects that implement defined network portal interfaces associated with content such that a client system can infer and or operate on: MIME type, child content, commands, properties, changes to... to one embodiment of the present invention.

Fig. 3B is a diagram that illustrates a server universal content

broker system and a `%%client%%` universal content broker system according to one embodiment of the present invention. Fig. 4 is...

...invention.

Fig. 9 is an illustrative of a default template used to generate a thin `%%client%%` according to another embodiment of the present invention. Fig. 10 is an example of a...

...embodiment of the present invention.

Fig. 15 is a detailed block diagram of a configuration `%%server%%` according to another embodiment of the present invention.

Figs. 16A and 16B are two examples of DOM trees found in the configuration `%%server%%` according to another embodiment of the present invention.

Fig. 17 is an example of a...

...the present invention.

Figs. 19A to 19E are examples of envelopes used by the configuration `%%server%%` according to another embodiment of the present invention. Fig. 20 is a sequence diagram that...

...of the universal content broker;

Fig. 28 illustrates the method for linking provider systems with `%%client%%` systems by using the network portal system according to the invention;

Fig. 29 and 30 illustrate linking a `%%client%%` mobile telephone system to a network portal system;

Fig. 31 illustrates the administration procedure for making a `%%client%%` system ready for login;

Fig. 32 illustrates accessing content by a `%%client%%` computer running a browser; and

Fig. 33 illustrates the conversion of content.

Fig. 34 shows...according to one embodiment of the present invention, network portal system 100 is a comprehensive `%%client%%/%%server%%` offering that enables users to access their applications, data, and services from almost any device...

...run on platforms utilizing any one of the operating systems Solaris, Windows NT/Windows 2000 (`%%server%%` version), or Linux In one embodiment, using a web browser and an Internet connection on any JAVA-enabled system, the user simply logs on to a web `%%server%%` in web-top manager 111, and proceeds as though everything were locally resident on his...

...Sun Microsystems, Inc. of Palo, Alto, CA.) While execution actually takes place on the web `%%server%%`, this fact is transparent to the user. Similarly, local services available on a `%%client%%` system, including devices like printers and local storage, can be utilized by web `%%server%%`-based components in a transparent manner.

In addition to using JAVA-enabled browsers, users can...to web-top manager 111. Typically, the request includes the type of document or service `%%requested%%`, the type of `%%client%%` device 102i that is making the request, the type of the browser executing on client...

...Web-top manager 111 selects a template, or stylesheet using the information transmitted in the `%%request%%` from `%%client%%` device

102i. The template, or stylesheet selected by web-top manager 111 is used to...

...content with differing formats by network portal system 100.

The above example assumed that the `%%client%%` `%%request%%` was for content provided by a registered content provider or for content available via a...of the present invention, the call from the text processing application is directed to a `%%proxy%%` in a bridge that converts the original call to a call to the desired service...

...to the embodiment illustrated in Figure 3A, is divided into three tiers, e.g., a `%%client%%` tier 301, a middle tier 302, and an information system tier 303 that in turn...an installed word processor and locally stored documents. In Figure 3A, the subsystems illustrated within `%%client%%` devices 102i and 102j are those that are typically used to interface with network portal...

...components needed to interface with the remote application and/or service are downloaded dynamically to `%%client%%` device 102i, when the components are needed. The complexity of these downloaded components can differ...

...can be displayed on the user device, e.g., HTML/WML/XML pages, (ii) linking `%%requests%%` from components in `%%client%%` tier 301 to actions on data objects, or (iii) hosting one of a plurality of... provider identifier.

Universal content broker 113 administers universal content providers 331. As soon as a `%%client%%` `%%requests%%` particular content, in this embodiment, web server 320 addresses UCB 113 and passes on the...

...of the necessary steps. The protocol or data source details are thus hidden from the `%%client%%`.

The `%%requested%%` data is loaded and transferred to the client, in this case web server 320, as a content object. The content object encapsulates the `%%requested%%` data. The `%%client%%` can now run commands on the content object, to load or edit the data, for...operation 401. As described above, the transmitted request includes the type of document or service `%%requested%%`, the type of `%%client%%` device 102i that is making the request, the type of the browser executing on client...lightweight remote visualization component on user device 102i, the infrastructure generation service first issues a `%%request%%` to the `%%client%%` factory on user device 102i to create a remote frame window, and then this service...processing.

Portlet manager 321 forwards the request to the appropriate portlet. The forwarding of the `%%request%%` to a specific portlet completes contact portlet operation 441. The portlet retrieves the data in...

...request contains one or more MIME types processing transfers to a get MIME type from `%%request%%` operation within operation 443 and otherwise to an identity check operation within operation 443.

In...construction of the data filter, conversion service 315 uses the data filter to process the `%%requested%%` document, e.g., the spreadsheet. The data filter generates data with a MIME type that...PAGES (JSPs) technology to dynamically generate HTML/WML pages that are sent as responses to `%%client%%` `%%requests%%`. (JAVASERVER PAGES is a trademark of Sun Microsystems, Inc.) JAVASERVER PAGES technology enables the separation...

...used to generate a corresponding HTML/WML page as explained below.

As described above, every `%%client%%` `%%request%%` received by ... service server component 801, sometimes called profiling service 801. Profiling service 801 controls how a `%%client%%` `%%request%%` is answered. In this embodiment, HTTP is used as the default protocol for transferring HTML...

...information to decide which template in templates 810 is to be used for answering the `%%client%%` `%%request%%`. Furthermore, service 801 ascertains which component, e.g., JSPs component, Servlets, Java Beans component or...is decided by profiling service 801, as described more completely below. Depending on the actual `%%client%%` `%%request%%` these could be other JSP pages or servlets.

Tables 2 and 3 list the placeholder...

...or Beans to be used by applying a decision tree. Profiling service 801 analyzes the `%%client%%` `%%requests%%` and decides, depending on the type of request, which JSP template file or servlet is to be used in response to the `%%client%%` `%%request%%` using the decision tree. In one embodiment, the decision tree is implemented as an XML...

...analyzing and selecting a template is effectively a series of "if-then" statements. If a `%%client%%` `%%request%%` matches a certain requirement, then the decision tree initializes the use of the associated template...also the existence of certain commands (Request Parameters). If the condition is fulfilled by the `%%client%%` `%%request%%`, a branching off into the appropriate section takes place and the action contained there is...

...Actions can contain further conditions or define specific templates (tag `<screen>`;) for answering `%%client%%` `%%requests%%`. It can also be the case that the individual components of the templates (tag `<t...`

...or HTML-based user device depends on the user-agent header information provided by the `%%client%%` `%%request%%`. For example, if the client is a Nokia Web-enabled phone, the user-agent header...

...IS login page)

then(use template=PQACCPPTemplate.jsp AND its

associated components as required per `%%request%%`)

If the `%%client%%` is identified as an HTML-based device, the decision tree initializes the use of the...as elements 1311 and 1312, respectively.

The ultimate value of each substitute depends on the `%%client%%` `%%request%%` parameters. For example, if the value of the `%%client%%` `%%request%%` parameter `viewTypeFolders` is defined as `iconView`, the value of placeholder `FolderView` is defined as `HTMLFolderView.jsp`. Likewise, if the value of the `%%client%%` `%%request%%` parameter is defined as `detailView`, the value of placeholder `FolderView` is defined as `HTMLFolderTableView.jsp`...TCP socket that provides connection-based communication between proxy 1510 and server 336. Each per-`%%client%%` TCP socket receives `%%transaction%%` requests from a proxy, in this embodiment. When a transaction request is received, this thread...



...configuration server 336 and contains all session related information. Table 1561 is used to get `%%client%%` connection information when `%%transaction%%` responses must be returned.

After opening the session, proxy 1510 makes one or more requests...user has privilege to access the specified data before the data is passed to the `%%client%%`.

Proxy 1510 calls `%%transaction%%` `openNode` with a limited number of levels when the number of children existing under a...

...this embodiment, each entry in table 1565 includes a session identifier, a node path, and `%%client%%` application information.

Other `%%transactions%%` supported by this embodiment of the invention include transactions `closeSession`, `openRawNode`, `closeNode`, `updateNode`, `addNode`, `deleteNode`...Otherwise, server 336 tries to send notifications about the unfinished transactions. In case (a), the `%%client%%` or proxy `%%requests%%` `%%transaction%%` `closeSession`, while in cases (b) to (d), listener 1530 initiates this transaction.

There are no...and a body, if the body is needed. Each header includes a transaction type, a `%%transaction%%` name, a `%%client%%` identifier that is assigned by proxy 1510, and a server identifier that is assigned by...a JAVA bean of Figure 8, creates an identifier factory that implements interface `XContentIdentifierFactory`. The `%%client%%` creates a provider object that implements interface `XContentProvider`, and then obtains an identifier for a...performing communication with any client system 2302A, 2302B via the network 2303, for ex., receiving `%%requests%%` for content from `%%client%%` systems and transmitting responses produced within the network portal system 2310 to the respective client...broker (UCB) 2413.

The webtop 2411 is a software implementation to provide a metaphor to `%%client%%` systems for accessing content. The webtop 2411 comprises a user interface which is defined in...

...portal system 2310.

The UCB 2413 interacts with the provider systems for retrieving the content `%%requested%%` by a `%%client%%` system. The access is performed on the basis of the `%%request%%` transmitted by the `%%client%%` system to the network portal system 2310. The request specifies the service, and comprises an...setting a property value which is associated with a message of an IMAP server. Upon `%%request%%` by a `%%client%%` system, the UCB 2413 performs a step 2310 for retrieving content as specified by the...

...client system (step 2780).

The UCB 2413 may be further adapted to automatically notify individual `%%client%%` systems whenever new content is created by the UCB 2413. To this end, the functionality...portal system 2310 is explained. In step 2810, a content request is received from a `%%client%%` system (2302A, 2302B), said request comprising a content indicator being indicative of the content, and an indicator of the `%%requesting%%` `%%client%%` system (2302A, 2302B), said `%%client%%` system indicator specifying the communication scheme supported by said `%%client%%` system (2302A, 2302B). Then, in step 2820, a provider system (2301A, 2301B) is searched which...

...provider system (2301A, 2301B). Finally, in step 2850, the retrieved content is rendered to said `%%requesting%%` `%%client%%` system (2302A, 2302B) according to the communication scheme of said `%%requesting%%`

%%client%% system (2302A, 2302B).

Next, by referring to Figs. 29 and 30, the method for providing content to a client system is explained. The %%client%% system %%requesting%% content is a mobile telephone 2302B.

First, in step 2901, the HTTP server 2312 receives...

...for converting the content of the provider's scheme into a representation according to the %%client%%'s scheme is executed. The conversion procedure will be described later in connection with Fig...

...the selected template (step 3012). Then, a stylesheet according to the MIME type of the %%client%% system 2302B is selected (step 3013). The template is rendered according to the selected stylesheet...

...step 3103, the selected login template is transmitted, via the HTTP server 2312, to the %%client%% system %%requesting%% the login. Upon receiving the login template, the client system can initiate the login procedure...implements the XContentProvider interface. Thus it may generate content for all schemes registered and the %%client%% does not have to query all content providers. Content is generated via the queryContent method...

...a directory folder is opened its content may be inserted asynchronously into the folder. A %%client%% responsible for the display of this content may then update its view according to the...commands or properties will need to implement the XContentTaskClient interface. When task state changes the %%client%% will be notified via the contentTaskEvent method. Status will include the old and new state...are included within the same computer.

In another embodiment, execution environment 120 is in a %%client%% system and execution environment

...CLAIMS having different types and different protocols to a single user interface comprising:

receiving a content %%request%% from a %%client%% system wherein said content request comprises a content identifier;  
selecting a content provider associated with...

...communication schemes, said network portal system comprising:

a) webtop means (2411) for receiving a content %%request%% from a %%client%% system (2302A, 2302B), said request comprising a content indicator being indicative of the content, and an indicator of the %%requesting%% %%client%% system (2302A, 2302B), said client system indicator specifying the communication scheme supported by said client...

...e) said webtop means (2411) being further adapted for rendering the retrieved content to said %%requesting%% %%client%% system (2302A, 2302B) according to the communication scheme of said %%requesting%% %%client%% system (2302A, 2302B).

78. The system according to claim 77, whereby said universal content broker...

...of different communication schemes, said method comprising the following steps:

a) receiving (2810) a content %%request%% from a %%client%% system (2302A, 2302B), said request comprising a content indicator being

indicative of the content, and an indicator of the %%%requesting%%%  
%%client%% system (2302A, 2302B), said client system indicator  
specifying the communication scheme supported by said client...

...from said accessed provider system (2301A, 2301B),  
e) rendering (2850) the retrieved content to said %%%requesting%%%  
%%client%% system (2302A, 2302B) according to the communication  
scheme of said %%%requesting%%% %%client%% system (2302A, 2302B).  
97. The method according to the preceding claim, whereby said provider  
system...

9/3,K/3 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00803531 \*\*Image available\*\*

METHOD AND APPARATUS FOR CONTROLLING SERVER NETWORKS  
PROCEDE ET APPAREIL POUR LA COMMANDE DE RESEAUX A SERVEURS

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TR TT TZ UA UG UZ VN YU ZA ZW  
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Detailed Description

## Claims

### Detailed Description

... workload module to route data through a computer network.

The Authentication Module authenticates users of %%%Client%%% 20 who %%%request%%% to use network 50. The authentication module also performs encryption of messages sent from system...

...involved in the authentication and

ID

workload management process will be described in detail. A %%%Client%%% 20 sends a %%%request%%% to AWMS for the user to be allowed to use the services offered by Servers...DCOM Distributed Component Object Model: A set of Microsoft concepts and program interfaces in which %%%client%%% program objects can %%%request%%% services from server program objects on other computers in a network.

The Component Object Model...

### Claim

... PROXY EXCHANGE

SERVER SERVER SERVER SERVER OBJECT  
EXCHANGE

HTTP SMTP POP3

SERVER SERVER SERVER SERVER

%%%CONTROL%%%

%%%CONTROL%%% %%%CONTROL%%% %%%CONTROL%%%

%%%OBJECT%%%

COMPRESSION LAYER

AUTHENTICATION AND WORKLOAD MANAGEMENT LAYER

cl:: cl@- Li

LLJ Z

LLJ =

ck: Li...

...26)

ALL COMMUNICATION IS

@OONE IN HTTP PROTOCOL@

LOGIN: ENCRYPTED (Uldt PSWD,

SUCCESS: ENCRYPTED (USE %%%SERVER%%% 2,

USER AUTHENTICATION LOGOUT: ENCRYPTED (Uldt PSWDt

DATABASE %%%SERVER%%% (AS)

SUCCESS

TO AS: FROM AS: HTTI

LIST OF LIST OF NOT ACCELERATOR EMBEI

cn ACTIVE AUTHORIZED ENCRY

c USERS + USERS TO %%%SERVER%%%

ED (Uldt

En STATISTILSJ REJECT

c:

@l

m

cn TO AS: FROM AS:

3: LIST OF LIST OF NOT

m

m ACTIVE AUTHORIZED ACCELERATOR

USERS + USERS TO %%%SERVER%%  
STATISTICS REJECT

m

TO AS: FROM AS:

LIST OF LIST OF NOT

ACTIVE AUTHORIZED ACCELERATOR

USERS + USERS TO %%%SERVER%%

STATISTICS REJECT 31

. . . . .I. . . . .

MATCH TO FIG.4B

MATCH TO FIG.4A

.....  
TO AS: FROM...

9/3,K/4 (Item 2 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00784184 \*\*Image available\*\*

A SYSTEM, METHOD FOR FIXED FORMAT STREAM COMMUNICATION IN A COMMUNICATION  
SERVICES PATTERNS ENVIRONMENT

SYSTEME, PROCEDE ET ARTICLE POUR FLUX DE FORMAT FIXE DANS UN ENVIRONNEMENT  
A CONFIGURATIONS DE SERVICES DE COMMUNICATION

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FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA  
MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA  
UG UZ VN YU ZA ZW

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(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

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Detailed Description

## Claims

### Detailed Description

... client" and llserver" are used to refer to a computer's general role as a %%%requester%%% of data (the %%%client%%%) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the %%%client%%% and cannot %%%request%%% the %%%client%%% to perform any action.

The communication model under the conventional Web environment provides a very...with

an embodiment of the present invention;

Figure 117 illustrates the manner in which a %%%client%%% %%%requests%%% information from server objects via a network;

Figure 118 illustrates the method of the present invention in which a %%%client%%% %%%requests%%% attributes from a server object via a network;

Figure 119 illustrates the transmitting of all...communication protocols are supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the %%%client%%%

102

%%%requests%%% into specific server calls. It handles security, authentication, statistics gathering and some system management tasks... type of conversation control is required?

131

RPCs permit one side of the conversation (the %%%client%%%) to only make %%%requests%%%, while the other side (the server) may only make replies. Conversation control is passed from the client to the server since the %%%client%%%, for each %%%request%%%, causes one or more functions to execute on the server while it waits for its...may improve performance by utilizing special techniques used to invoke the server every time a %%%client%%% %%%request%%% arrives.

Perfort-nance should be considered as a product differentiator.

What level of security is...

### Claim

... area network antennas and the associated radio frequencies  
satellite antennas and the associated radio frequencies

%%%TRANSACTION%%% 1012,1014

A %%%transaction%%% is a unit of work that has the following (ACID) characteristics: A transaction is atomic...

...to other transactions. Transactions appear to execute serially, even if they are performed concurrently. A %%%transaction%%% is durable; the effects of a completed transaction are persistent; they are never lost (except...

...are made permanent. When a transaction is rolled back, all changes made by the associated %%%requests%%% are undone. Transaction Services provide the transaction integrity mechanism for the application. This allows all ...servers handles requests from all clients located in the USA while the other group serves %%%requests%%% from Canada. When a %%%client%%% sends a %%%request%%% to the system, a field in the request message, defining

the location of the client...

- ...request to the correct group of servers (USA or Canada) based upon information in the `request` message.  
Is Reliable Queueing Necessary?  
TP monitors provide the ability to enqueue and dequeue requests to and from a reliable (stable storage) queue. Both the `application` and the administrator can `control` the order of the messages (service requests) in the queue. Messages can be ordered LEFO Possible Product Options  
Tuxedo; CICS/6000; Encina; MS `Transaction` Server; Sybase Jaguar; TOP END; openUTM; TransIT Open/OLTP  
Below are commonly used `transaction` monitors:  
BEA TUXEDO - provides a robust middleware engine for developing and deploying business-critical client...
- ...for developing, deploying, and managing high performance, and scalable enterprise, Internet, and intranet server applications. `Transaction` Server defines an application programming model for developing distributed, component-based applications. It also provides...
- ...s messaging  
Supports conversational messaging between a client and a specific server  
Peer-to-peer, `client-to-client` messaging is supported  
Unsolicited messaging is supported for client processes  
Asynchronous service calls can be...
- ...at all. Resource Management, Services use locking, commit, and rollback services, and are integrated with `Transaction` Management Services.  
`Transaction` Management 2606  
Transaction Management Services coordinate transactions across one or more resource managers either on rolled back. This services that allow multiple applications to share data with integrity. The `transaction` management services help implement the notion of a transaction -- a set of computations producing changes...
- ...a problem arises on a network connection or a computer, the software will roll the `transaction` back so it will not be entered in either place. A restart mechanism may then...
- ...support for mapping a single logical transaction in an application into the required multiple physical `transactions`. For example, in a package or legacy rich environment, the single logical transaction of changing...
- ...require the partitioning and coordination of several physical transactions to multiple application systems or databases.  
`Transaction` Partitioning Services provide the application with a simple single transaction view.  
Implementation considerations  
Must the system support logical `transactions` that occur across heterogenous application servers and databases?  
EXAMPLE:  
202  
In a given application, a...an understandable explanation of what has

happened and coordinating with other services to ensure that  
%%%transactions%%% and data are restored to a consistent state. Logging  
Services support the logging of informational...

...computer (in this paper the term Context Management refers to storing  
state information on the %%%server%%%, not the %%%client%%%).  
%%%Client%%%/server architectures simplified or eliminated the need for  
Context Management (storing state information on the...the server and  
on the client page. Application state information is maintained by the  
application %%%server%%%, and local state information is maintained on  
the page. NetDynamics provides manipulatable state objects for...

...Interface 2734

An Application Integration Interface provides a method or gateway for  
passing context and %%%control%%% of information to an external  
%%%application%%%. The Application Integration Interface specifies how  
information will be passed and defines the interface by...Web style  
computing. Microsofts Web browser, Internet Explorer, is an ActiveX  
container. Therefore, any ActiveX %%%control%%% can be downloaded to, and  
plugged into the browser. This allows for executable components to...the  
following:

Managing documents in most formats such as HTML, Microsoft Word, etc.  
Handling of %%%client%%% %%%requests%%% for HTML pages. A Web browser  
initiates an HTTP request to the Web server either...

...Oracle WebServer

A multi-threaded HTTP server that provides integrated features for  
translating and dispatching %%%client%%% HTTP %%%requests%%% directly to  
the Oracle7 Server using PL/SQL.

Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for  
reporting applications into the report architecture. The %%%client%%%  
initiates a report %%%request%%% to the report architecture by sending a  
message to the report initiation function. The responsibility...are  
forwarded to the report writer process at the current or specified time.  
All report %%%requests%%% are processed in an asynchronous manner (for  
example, service requesters do not wait for completion...

...each report that has been requested for generation, including:

Requester ID

Report name

Date/time %%%requested%%%

Status (%%%requested%%%, in process, complete, or error)

Report-specific parameters. The requester ID, report name, and date...

...is also provided to print the report after the generation if specified  
in the original %%%request%%%. Processed report records are removed from  
the table only after the output reports have been...

...invokes the appropriate modules to handle each request. Subsequent  
process flows differ based upon the %%%requested%%% service. In the case  
of a report generation request, the process flow proceeds as follows...

...report writer module generates the report, prints it if specified in the  
original A-PI %%%request%%%, and updates the status in the report status  
table.

A request to print a report...



...file is located on disk and sent to the specified or default printer or the `%%request%%` is sent to the event manager for report scheduling.

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Report deletion proceeds as follows...

...service, a printer name is passed. For status update, the new status code is passed. `%%Request%%` Report. The `%%Request%%` Report function is responsible for processing report request messages written to the report process queue...

...a generated report output file to a specified or default printer. The report name and `%%requesting%%` process ID is passed to identify the report.

#### 1 5 EVALUATION CRITERIA

There are two...role, independent of the specific person, or process filling that role. For example, a

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`%%request%%` is routed to a supervisor role or to Purchasing, rather than to "Mary" or "Tom..."

...entries to be modified.

Is there a need for reporting and management facilities?

Typical workflow `%%application%%` requirements are better general management `%%control%%` and better management of change. Proactive system action, audit trails and system administration features like... that govern how a sales order is fulfilled). As such, the Business Logic includes the `%%control%%` structure that specifies the flow for processing business events and user requests. There are many...

...the steps and rules that govern how a sales order is fulfilled). As such, the `%%Application%%` Logic includes the `%%control%%` structure that specifies the flow for processing for business events and user requests. The isolation...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...

...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...deal with the complex requirements of multi-step business-to-business and consumer-to-business `%%transactions%%`. To do this, the Web must evolve into a full-blown client/server medium that...

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traditional application architectures to provide a greater degree of default behavior and flow of `%%control%%` in a skeleton of the `%%application%%`. For example, traditional program shells rely heavily on cut-and-paste techniques to achieve reuse...more. It is also extremely important to have a significant percentage of the team with `%%client%%` /server skills, to reduce additional learning curves such as GUI design or client/server architecture...common to those who have successfully scaled the

component management learning curve include:

Experience with `%%client%%`/server development and a technical orientation

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Willingness and flexibility to learn new terminology, tools...members

developed the overall architecture mechanisms, providing structure and default behavior for the entire application. `%%server%%` team members developed common data access and service routines on the `%%server%%`. Architecture roles must be defined to support this greater degree of specialization. One engagement used...for an enterprise. team focused on developing the component model. On the hand, if the `%%client%%` is most concerned about delivering business functionality, workcells should be aligned by business function.

The...that defining the macro process along the lines of a waterfall structure is most effective. `%%Client%%` and firm project management are typically uncomfortable with defining milestones and estimating work with iterations...

...The need to start architecture implementation early is well-understood for traditional or component-based `%%client%%/%%server%%` development. What is different with component-based development, however, is the need for the component...specifications.

Architecture development must start early

A tension exists between use cases and frameworks

As with `%%client%%/%%server%%`, architecture work must start early. As noted above, this is particularly challenging because of the...

...application. Frameworks developer - responsible for the application and technology architecture that provide common services and `%%control%%` logic for the `%%application%%`. These roles do not necessarily correspond directly to organization assignments. Whether these roles formalize as...and implementation of window functionality, development can proceed very similar to that of a traditional, `%%client%%/server` GUI project. Particularly early in development, many aspects of the methodology can be very...

...based development and more related to challenges naturally resulting from unfamiliarity. What is now "traditional" `%%client%%/server` development faced similar difficulties years ago. In some cases, this unknown requires experimentation. For...

...whether to use messaging, remote procedure calls, or shipped SQL statements for distribution services between `%%client%%` and server. A prototype is often the only way to identify the most effective solution ...more global implications.

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For example, changes may be rolled out in the following intervals:

`%%Application%%` Interface or `%%Control%%` - nightly

Narrow Impact `%%Object%%` Model - nightly

Wide Impact Object Model - coordinated on-demand, no more than 1-3 times  
...Microsoft Word (which can transform documents into HTML) make it possible to leverage the web `%%server%%`'s index `%%server%%` to locate artifacts from various locations. This practice is being more widely adopted, as shown...during coding and maintenance. Moreover, they also complicate business logic with technical details. Therefore, the `%%application%%` architecture should `%%control%%` access to a business `%%object%%`'s data. This will separate out reusable, technical, architecture details. Business objects should use an...of looking-up the interfaces using the naming service. In a client-server environment, a `%%client%%` makes `%%requests%%` of services on a Server. In such an environment, how might a Server expose its...a Globally Addressable

Interface. The Message Trace diagrams depict a common Client-Server scenario. A %%%client%%% %%%requests%%% customer data from a Server. The Server finds the data in a database and forwards...

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A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A GLOBALLY ADDRESSABLE INTERFACE IN A COMMUNICATION SERVICES PATTERNS ENVIRONMENT  
SYSTEME, PROCEDE ET ARTICLE DE FABRICATION S'APPLIQUANT DANS UN ENVIRONNEMENT DE STRUCTURE DE SERVICES DE COMMUNICATIONS VIA UNE INTERFACE ADRESSABLE GLOBALEMENT

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Detailed Description

Detailed Description

... client" and llserver" are used to refer to a computer's general role as a %%%requester%%% of data (the %%%client%%%) or provider of data (the server). Under the Web environment, Web browsers reside in clients...

...above interaction, the server serves a passive role, i.e., it accepts commands from the %%%client%%% and cannot %%%request%%% the %%%client%%% to perform any action.

The communication model under the conventional Web environment provides a

very...with  
 an embodiment of the present invention;  
 Figure 117 illustrates the manner in which a %%%client%%% %%%requests%%%  
 information from server objects via a  
 network;  
 Figure 118 illustrates the method of the present invention in which a  
 %%%client%%% %%%requests%%% attributes  
 from a server object via a network;  
 Figure 119 illustrates the transmitting of all...of the present  
 invention;  
 Figure 186 illustrates the manner in which the present invention sends  
 %%%requests%%% independently; Figure 187 illustrates a manner in which  
 the present invention registers %%%requests%%%; Figure 188 illustrates a  
 flowchart for a method for sorting requests that are being unbatched...s  
 Java language solves many of the client-side problems by.

Improving performance on the %%%client%%% side;  
 Enabling the creation of dynamic, real-time Web applications; and  
 Providing the ability to...business capabilities that are offered by  
 technologies rather than just on definitions for what is %%%client%%%  
 /server or what is Netcentric technology.

#### Delivery vehicle matrix

Figure 4 illustrates a delivery vehicle...new applications. A typical  
 scenario can involve mainframe legacy systems acting as servers in a  
 %%%client%%% server architecture, application servers being accessed from  
 both traditional GUI clients built in Powerbuilder and...

...most applications should ideally be based on a Netcentric Architecture,  
 rather than on a traditional %%%client%%%/server or a host-based  
 architecture.

However choosing a generation is not just a technical...

...of factors which are completely non-technical in nature, such as  
 financial factors, internal and %%%client%%% politics (say no more), and  
 implementation/operational considerations.

When deciding whether to employ a Netcentric...already been successfully  
 piloted or deployed, acceptance of additional systems will be eased.

E2, The %%%client%%% has significant technology skills within its IT  
 department.

This is especially important if the client...

...to internal organizations may be necessary for successful deployment of  
 this type of system. The %%%client%%% must have a culture that supports  
 change. Some organizations are very conservative and strong, making it  
 difficult to deliver a successful project using new technology.

E3. The %%%client%%% has multiple hardware/operating system  
 configurations for their %%%client%%% machines.

In traditional client/server environments, distributing an application  
 internally or externally for an enterprise...

...be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal %%%Client%%% or web-browser may eliminate many of these problems by providing a consistent and familiar...  
...ensure existing legacy systems and infrastructure can absorb this increase.

Business imperatives 702

BI. The %%%client%%% needs to reach a new external audience with this application.

This is probably the main...

...Netcentric architecture it is often possible to gain exposure to new customers and markets. The %%%client%%% can often achieve significant competitive advantage by providing new services and -products to its customers...

...each customer can repeatedly and easy customize a product according to own preferences.

B2. The %%%client%%% needs to reach a large or diverse internal audience with this application.

Configuration management of traditional %%%client%%%/server applications, which tend to be 20. physically distributed across both the %%%client%%% and server, is a major issue for many corporations. The software distribution of such applications...

...distributing functionality to both internal and external users.

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IT guiding principles 704

G1. The %%%client%%% is an early adopter of new technology.

Implementation of a Netcentric architecture can help the...

...organization does have inherent risks and can result in a significant amount of change. The %%%client%%% should have a culture which can embrace these necessary changes.

G2. Applications should be developed...Netcentric architecture simplifies frequent software releases for both internal and external users of the systems.

%%%Client%%%/server network generation

If, based upon a %%%client%%%s requirements, most of the statements of Figure 8 are true, one should consider an application based upon the %%%Client%%% Server technology generation.

The following section details the importance of each of the statements found...

...appropriate answer for your specific client engagement.

A0

Existing architecture and infrastructure 800

E1. Other %%%Client%%% Server applications been developed and placed in

production and the client IT organization contains personnel...

...architecture concepts.

As with any new technology, there is a learning curve related to attaining client server development skills. The development process is often much more efficient when familiar, tools and...

...used. The introduction of new technology can also create instability in the operations environment. Client/server systems still represent a new technology to many IT departments.

Business imperatives 802

111...

...is critical to the application or sub-second response times are required for successful use.

Client server applications can provide response times necessary to support transaction intensive mission critical systems. Application...

...Operations and Development architectures required to develop, run and support the production systems. Before a Client Server application is developed, it is important that the client identify how a system of...

...in Figure 9 and should assist you in identifying the appropriate answer for your specific client engagement.

Existing architecture and infrastructure 900

El. The client currently maintains and operates host based...traditional client/server design concepts and considerations still apply to NCC.

The important differences between client/server systems and NCC systems are.

The way in which the application logic is distributed...

...application logic can be packaged into components and distributed from a server machine to a client machine over a network. In traditional client/server systems, the application logic is split between the client and the server on a permanent basis; there is no dynamic distribution of application logic...

...enable NCC systems to be adaptable to a variety of distribution styles, from a "thin client" to a "fat client". In comparison, traditional client/server systems, once designed and built, cannot be adapted for use on more than one...

...two-tiered client/server architecture assumes that an application's presentation logic resides on the client and its data management logic resides on the server. This style of computing became attractive...

...The use of two-tier tools has resulted in a defacto "client-heavy" or "fat-client" two-tiered model where the presentation and application logic resides on the client and data management resides on the server. In fact, the use of these tools "out..."

...integration of distributed transaction processing middleware. This model of computing is often termed the "enhanced" client/server model. Most Netcentric architectures use a three- or four tiered approach with a

web server and potentially a separate application server layer.

In the enhanced `client/server` model, all presentation and control logic resides on the client, all application logic resides...

...and two-tiered client/server computing models, the principle advantage with a three-tiered enhanced `client/server` architecture is that it provides the benefits of a GUI application, but also provides...ad hoc reporting queries or data warehousing applications can work with a replica of the `transaction` database, these resource intensive applications will not interfere with mission critical transaction processing. Replication can...communication protocols are supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the `client request` into specific server calls. It handles security, authentication, statistics gathering and some system management tasks...What type of conversation control is required? RPCs permit one side of the conversation (the `client`) to only make `requests`, while the other side (the server) may only make replies. Conversation control is passed from the client to the server since the `client`, for each `request`, causes one or more functions to execute on the server while it waits for its...may improve performance by utilizing special techniques used to invoke the server every time a `client request` arrives.

Performance should be considered as a product differentiator.

What level of security is required...the C language). This means that control is passed from the main logic of a `program` to the called function, with `control` returning to the main `program` once the called function completes its task.

Because RPCs perform this mechanism across the network...been ported to multiple hardware platforms/operating systems.

CTI Enabling Solutions - focus solely on call `control` and call/`application` synchronization functions.

CTI Enterprise Solutions - provide all CTI business functions to varying degrees.

Possible Product...MIME - a secure version of the MIME e-mail standard.  
Authorization 1554

When a user `requests` access to network resources, the Authorization service determines if the user has the appropriate permissions...

...Network Operating Systems - Authorization services are bundled with all network operating systems in order to `control` user access to network resources.

Firewall Services protect sensitive resources and information attached to an...

...proxy manages a database of allowed user actions, which it checks prior to performing the `request`.

Servers, Applications, and Databases - Authorization can occur locally on a server to limit access to...Nanny

network operating systems

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Microsoft Windows NT, Novell Netware, UNIX, etc.

application proxies

Microsoft `%%Proxy%%` `%%Server%%` - allows for designation of who can access the Internet and which services they can use...preserve invariant properties.

A transaction is isolated; its intermediate states are not visible to other `%%transactions%%`.

`%%Transactions%%` appear to execute serially, even if they are performed concurrently.

A transaction is durable; the...

...a completed transaction are persistent; they are never lost (except in a catastrophic failure).

A `%%transaction%%` can be terminated in one of two ways: the transaction is either committed or rolled back. When a transaction is committed, all changes made by the associated `%%requests%%` are made permanent. When a `%%transaction%%` is rolled back, all changes made by the associated requests are undone.

Transaction Services provide...the system not a transaction processing system?

Although TP monitors provide global two-phase commit "`%%transaction%%` processing" functionality, systems that do not need this feature can also benefit by using TP...

...dispersed across North America. There are two groups of servers. One group of servers handles `%%requests%%` from all clients located in the USA while the other group serves requests from Canada. When a `%%client%%` sends a

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`%%request%%` to the system, a field in the request message, defining the location of the client, is passed to the system. The TP monitor is then able to route the `%%request%%` to the correct group of servers (USA or Canada) based upon information in the `%%request%%` message.

Is Reliable Queueing Necessary?

TP monitors provide the ability to enqueue and dequeue requests...

...queue. Both the application and the administrator can control the order of the messages (service `%%requests%%`) in the queue. Messages can be ordered LIFO, FIFO, time based, priority, or by some...ex. I 000+ TPS)  
Scaleable (handle many clients or a few without code rewrite)  
Supports `%%Transactions%%`, including XA `%%transactions%%`  
Has its own transaction resource manager  
Guaranteed message delivery using a stable storage queue (/Q...

...server

Peer-to-peer, client-to-client messaging is supported

Unsolicited messaging is supported for `%%client%%` processes

Asynchronous service calls can be made by client and server processes



Synchronous service calls...are made completely (committed) or not at all (roll-back).

Consistency - the effects of a `%%transaction%%` preserve invariant properties.

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Isolation - intermediate data values are not visible to other transactions.

Durability...

...transaction processing (OLTP) monitors to ensure information integrity across distributed databases. With this feature, a `%%transaction%%` is only committed if two databases have the necessary information. If a problem arises on...

...not be entered in either place. A restart mechanism may then retriuy to complete the `%%transaction%%`.

Possible Product Options

Tuxedo; Encina; TOP END; CICS/6000; openUTM; TransIT Open/OLTP

`%%Transaction%%` Partitioning 2608

`%%Transaction%%` Partitioning Services provide support for mapping a single logical transaction in an application into the...

...multiple physical transactions. For example, in a package or legacy rich environment, the single logical `%%transaction%%` of changing a customer address may require the partitioning and coordination of several physical transactions...

...an update to a table in a MVS DB2 database. Although there are two physical `%%transactions%%` occurring, this entire business process is represented as a single logical transaction. Transaction Partitioning services...because there are more types of users (e.g., employees, customers) and additional types of `%%transactions%%` (e.g., e-commerce, help-desks). hi traditional client/server environments most users are employees...

...an understandable explanation of what has happened and coordinating with other services to ensure that `%%transactions%%` and data are restored to a consistent state.

Logging Services support the logging of infon...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.

Handling of `%%client%%` `%%requests%%` for HTML pages. A Web browser initiates an HTTP request to the Web server either...Oracle WebServer A multi-threaded HTTP server that provides integrated features for translating and dispatching `%%client%%` HTTP `%%requests%%` directly to the Oracle7 Server using PL/SQL.

Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for reporting applications into the report architecture. The `%%client%%` initiates a report `%%request%%` to the report architecture by sending a

message to the report initiation function. The responsibility...  
...required for the report. This function would utilize the Information  
Access Services component of the %%%client%%%/%%server%% architecture.

Format the information. This function is responsible for formatting the  
collected information into the...

...function will locate completed report files and route them to the  
appropriate devices within the %%%client%%%/%%server%% network.

Typically, a report distribution database is used to specify the  
destinations for each report...

...3100 and the report writer process 3102.

#### Design Approach

For the report process in a %%%client%%%/%%server%% system, a set of  
Apis is provided for use within application programs and within the...

...name

Date/time requested

Status (requested, in process, complete, or error)

Report-specific parameters.

The %%%requester%% ID, report name, and date/time are used to uniquely  
identify the report. These values...process reads the messages from a  
queue and invokes the appropriate modules to handle each %%%request%%.  
Subsequent process flows differ based upon the requested service. In the  
case of a report generation %%%request%%, the process flow proceeds as  
follows.

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record is added to the report status table...

...file is located on disk and sent to the specified or default printer or  
the %%%request%% is sent to the event manager for report scheduling.

Report deletion proceeds as follows.

The...

...been previously requested for generation by the calling process.  
Returned is a list containing the %%%requested%% data as well as the  
number of reports found.

Control Reports. The %%%Control%% Reports function is responsible for  
performing various operations on reports. The following services are  
provided...

...should work with, and support maintenance of, a report repository on the  
platforms within the %%%client%%%/%%server%% architecture. The report  
repository contains the detailed definitions of the reports.

2. Workgroup Report Support...

...the workgroup server.

3. On-Demand Reports: The report architecture must support distribution

of reports `%%requested%%` by users on demand. Typically, these reports will not have a set schedule or frequency...report level security. This security

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must be in place on all platforms with the `%%client%%/%%server%%` architecture. At the workgroup level, the security may consist of downloading sensitive report files to...to invoke applications directly.

Is there a need for reporting and management facilities?

Typical workflow `%%application%%` requirements are better general management `%%control%%` and better management of change. Proactive system action, audit trails and system ...elapsed time, and work often moves from one processing site to another. As data and `%%application%%` logic are split, better `%%control%%` is needed to track processing/data status across location.

Will there be business process re...

...that govern how a sales order is fulfilled). As such, the Business Logic includes the `%%control%%` structure that specifies the flow for processing business events and user requests. There are many...

...the steps and rules that govern how a sales order is fulfilled). As such, the `%%Application%%` Logic includes the `%%control%%` structure that specifies the flow for processing for business events and user requests. The isolation...software distribution.

Another factor to consider is how the business logic is distributed between the `%%client%%` and the `%%server%%(s)` - where the business logic is stored and where the business logic is located when...

...are many ways to distribute business logic: (1) business logic can be stored on the `%%server%%(s)` and executed on the `%%server%%(s)`; (2) business logic can be stored on the `%%server%%(s)` and executed on the `%%client%%`; (3) business logic can be stored and executed on the `%%client%%`; (4) some business logic can be stored and executed on the `%%server%%(s)` and some business logic can be stored and executed on the `clie'nt`; etc.

Having the business logic stored on the `%%server%%` enables developers to centrally maintain application code; thereby eliminating the need to distribute software to `%%client%%` machines when changes to the business logic occur. If all the business logic executes on the `%%server%%`, then the application on the `%%client%%` will make `%%requests%%` to the `%%server%%` whenever it needs to execute a business function. This could increase network traffic, which may degrade application performance. On the other hand, having the business logic execute on the `%%client%%`, may require longer load times when the application is initially launched. However, once the application is loaded, most processing is done on the `%%client%%` until synchronization with the `%%server%%` is needed. This type of an architecture might introduce complexities into the application that deal...

...Web browser.

Currently, Internet applications house the majority of the business processing logic on the `%%server%%`, supporting the thin-`%%client%%` model. However, as technology evolves, this balance is beginning to

shift, allowing business logic code bundled into components to be either downloaded at runtime or permanently stored on the `%%client%%` machine. Today, `%%client%%` side business logic is supported through the use of Java applets, JavaBeans, Plug-ins and...

...software distribution.

Another factor to consider is how the business logic is distributed between the `%%client%%` and the `%%server%%(s)` - where the business logic is stored and where the business logic is located when...

...are many ways to distribute business logic: (1) business logic can be stored on the `%%server%%(s)` and executed on the `%%server%%(s)`; (2) business logic can be stored on the `%%server%%(s)` and executed on the `%%client%%`; (3) business logic can be stored and executed on the `%%client%%`; (4) some business logic can be stored and executed on the `%%server%%(s)` and some business logic can be stored and executed on the `%%client%%`; etc.

Having the business logic stored on the `%%server%%` enables developers to centrally maintain application code; thereby eliminating the need to distribute software to `%%client%%` machines when changes to the business logic occur. If all the business logic executes on the `%%server%%`, then the application on the `%%client%%` will make `%%requests%%` to the `%%server%%` whenever it needs to execute a business

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function. This could increase network traffic, which may degrade application performance. On the other hand, having the business logic execute on the `%%client%%`, may require longer load times when the application is initially launched. However, once the application is loaded, most processing is done on the `%%client%%` until synchronization with the `%%server%%` is needed. This type of an architecture might introduce complexities into the application that deal...Web browser.

Currently, Internet applications house the majority of the business processing logic on the `%%server%%`, supporting the thin-`%%client%%` model. However, as technology evolves, this balance is beginning to shift, allowing business logic code bundled into components to be either downloaded at runtime or permanently stored on the `%%client%%` machine. Today, `%%client%%` side business logic is supported through the use of Java applets, JavaBeans, Plug-ins and...or more products, but when it's time to implement this concept in a particular `%%client%%/%%server%%` environment, it may be necessary to partition the Order Business Component into the Order Entry component on the `%%client%%` and the Order Management component on the `%%server%%`.

These are Partitioned Business Components.

Engineering Components are independent pieces of software that provide functionality...

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00784139

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A SELF-DESCRIBING STREAM IN

A COMMUNICATION SERVICES PATTERNS ENVIRONMENT  
SYSTEME, PROCEDE ET ARTICLE DE FABRICATION DESTINES A UN FLUX  
D'AUTODESCRIPTEURS DANS UN ENVIRONNEMENT DE MODELES DE SERVICES DE  
COMMUNICATION

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Detailed Description

Detailed Description

... client" and llserver" are used to refer to a computer's general role  
as a \*\*\*requester\*\*\* of data (the \*\*\*client\*\*\* or provider of data (the  
server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts  
commands from the \*\*\*client\*\*\* and cannot \*\*\*request\*\*\* the \*\*\*client\*\*\*  
to perform any action.

The communication model under the conventional Web environment provides a  
very...two categories of the Physical Media;  
Figure 26 illustrates several of the components of the \*\*\*Transaction\*\*\*  
areas of the Netcentric  
Architecture Framework;

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Figure 27 illustrates various components of the Environmental...with  
an embodiment of the present invention;

Figure 117 illustrates the manner in which a \*\*\*client\*\*\* \*\*\*requests\*\*\*  
information from server objects via a  
network;

Figure 118 illustrates the method of the present invention in which a

%%%client%%% %%%requests%%% attributes  
from a server object via a network;  
Figure 119 illustrates the transmitting of all...A and C, deletes C but  
fails to delete A; Figure 140 illustrates a GarbageCollector  
%%%requesting%%% for interest in context A; Figure 141 illustrates a  
GarbageCollector requesting for interest in context...Generic Message  
Forwarding feature;  
Figure 185 illustrates a flowchart for a method for batching logical  
%%%requests%%% for reducing network  
traffic in accordance with an embodiment of the present invention;  
Figure 186...s Java language solves many of the client-side problems by.

Improving performance on the %%%client%%% side;  
Enabling the creation of dynamic, real-time Web applications; and  
Providing the ability to...

...Unlike HTML, Java supports the notion of client-side validation,  
offloading appropriate processing onto the %%%client%%% for improved  
performance. Dynamic, real-time Web pages can be created. Using the  
above-mentioned...by technologies.

Provide new architecture frameworks needed today to meet you're a user's  
%%%client%%%s business needs.

Provide guidance to define what architecture best meets you're a user's  
%%%client%%%s business needs.

Provide standard architecture frameworks and best practices to build  
these architectures.

During...

...new applications. A typical scenario can involve mainframe legacy  
systems acting as servers in a %%%client%%% server architecture,  
application servers being accessed from both traditional GUI clients  
built in Powerbuilder and...tier) client/server systems.

The following sections identify the main characteristics associated with  
a Netcentric, %%%Client%%% Server or Host based technology generation.  
This list should in no way be considered complete...

...in Figure 7 and should assist one in identifying the appropriate answer  
for the specific %%%client%%% engagement.

Existing architecture and infrastructure 700  
El. Other Netcentric applications been developed and placed in...

...client has significant technology skills within its IT department.

This is especially important if the %%%client%%% plans on developing or  
operating the application themselves. A significant investment in  
training and changes to internal organizations may be necessary for  
successful deployment of this type of system. The %%%client%%% must have  
a culture that supports change. Some organizations are very conservative  
and strong, making it difficult to deliver a successful project using new  
technology.

E3. The %%%client%%% has multiple hardware/operating system configurations for their %%%client%%% machines.

In traditional %%%client%%%/server environments, distributing an application internally or externally for an enterprise requires that the application be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal %%%Client%%% or web-browser may eliminate many of these problems by providing a consistent and familiar ...

- ...Netcentric architecture it is often possible to gain exposure to new customers and markets. The %%%client%%% can often achieve significant competitive advantage by providing new services and products to its customers...
- ...each customer can repeatedly and easily customize a product according to own preferences.

B2. The %%%client%%% needs to reach a large or diverse internal audience with this application.

Configuration management of traditional %%%client%%%/server applications, which tend to be physically distributed across both the %%%client%%% and server, is a major issue for many corporations. The software distribution of such applications...

- ...an update is made, a process must be initiated to distribute new code to all %%%client%%% machines. The browser-centric application style offers an alternative to this traditional problem of distributing functionality to both internal and external users.

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IT guiding principles 704

G1. The %%%client%%% is an early adopter of new technology.

Implementation of a Netcentric architecture can help the...internal and external users of the systems.

Client/server network generation

If, based upon a %%%client%%% 's requirements, most of the statements of Figure 8 are true, one should consider an application based upon the %%%Client%%% Server technology generation.

The following section details the importance of each of the statements found...

- ...the appropriate answer for your specific client engagement.

Existing architecture and infrastructure 800

E1, Other %%%Client%%% Server applications been developed and placed in production and the client IT organization contains personnel familiar with %%%client%%% server architecture concepts.

As with any new technology, there is a learning curve related to...

- ...environments due to the fact that executable and data files need to reside on the %%%client%%% hard drive.

Distribution to a user community outside of the client's organization is  
...

...necessary resources, organizations and processes to maintain a Client Server application.

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Introduction of a `%%Client%%` Server application to a company's production environment can require a great deal of change...

...Operations and Development architectures required to develop, run and support the production systems. Before a `%%Client%%` Server application is developed, it is important that the `%%client%%` identify how a system of this type will fit within the company's strategic technology... applications.

These applications provide capabilities to publish, interact or transact. Netcentric represents an evolution of `%%Client%%/Server` which may utilize internet technologies to connect employees, customers, and business partners.

Client/Server...

...a new style of computing that expands on the technological base already provided by traditional `%%client%%/server` systems. Many of the traditional `%%client%%/server` design concepts and considerations still apply to NCC.

The important differences between `%%client%%/server` systems and NCC systems are.

The way in which the application logic is distributed...

...ran on multiple operating systems and hardware

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platforms. In traditional client/server systems, the `%%client%%` is custom-made for a specific operating system and hardware platform.

The way in which NCC and traditional `%%client%%/server` systems can be extended and adapted is different. Components enable NCC systems to be...

...are usually implemented on UNIX, NT or mainframe machines.

A key design decision for a `%%client%%/server` system is whether it should be two-tiered or multi-tiered and how business...

...logic resides on the server. This style of computing became attractive to early adopters of `%%client%%/server` because it clearly addresses the inadequacies of a character-based interface. That is, it...

...integration of distributed transaction processing middleware. This model of computing is often termed the "enhanced" `%%client%%/server` model. Most Netcentric architectures use a three- or four tiered approach with a web server and potentially a separate application server layer.

In the enhanced `%%client%%/server` model, all presentation and control logic resides on the `%%client%%`, all application logic resides on multiple back-end application servers, and all data management logic...



...tuned for the work they perform.

Database scaleable on throughput - In the enhanced three-tiered  
%%client%%/server model, %%client%% applications no longer connect  
directly to database servers. ...be utilized for specific talents in  
each tier.

Allows for asynchronous and standardized messaging - The enhanced  
%%client%%/server model is really a superset of the RPC-based function  
shipping model which provides...communication protocols are supported  
including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the  
%%client%% %%requests%% into specific server calls. It handles  
security, authentication, statistics gathering and some system management  
tasks...print services for NT networks.

Line Printer Daemon (LPD) - UNIX print management facilities, which  
include %%client%% and server utilities for spooling print jobs.

Related programs include lpr (sends print job to...What type of  
conversation control is required?

RPCs permit one side of the conversation (the %%client%%) to only make  
%%requests%%, while the other side (the server) may only make replies.  
Conversation control is passed from the client to the server since the  
%%client%%, for each %%request%%, causes one or more functions to  
execute on the server while it waits for its...

...may improve performance by utilizing special techniques used to invoke  
the server every time a %%client%% %%request%% arrives.

Performance should be considered as a product differentiator.

What level of security is required...MIME - a secure version of the MIME  
e-mail standard.

Authorization 1554

When a user %%requests%% access to network resources, the Authorization  
service determines if the user has the appropriate permissions...The user  
name and password are transmitted as a scrambled message as part of each  
%%request%% because there is no persistent connection open between the  
Web client and the Web server...A transaction is atomic; if interrupted  
by failure, all effects are undone (rolled back).

A %%transaction%% produces consistent results; the effects of a  
transaction preserve invariant properties.

A transaction is isolated...

...in a catastrophic failure).

A transaction can be terminated in one of two ways: the %%transaction%%  
is either committed or rolled back. When a transaction is committed, all  
changes made by...has this quality is a candidate for a TP monitor.

Is the system not a %%transaction%% processing system?

Although TP monitors provide global two-phase commit "%%transaction%%  
processing" functionality, systems that do not need this feature can  
also benefit by using TP...

...ability to route requests to a particular server based upon the data passed within the `$$$request$$$`. TP monitors can provide this functionality.

e.g. A system has several servers accepting requests...

...dispersed across North America. There are two groups of servers. One group of servers handles `$$$requests$$$` from all clients located in the USA while the other group serves requests from Canada. When a `$$$client$$$` sends a  
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`$$$request$$$` to the system, a field in the request message, defining the location of the `$$$client$$$`, is passed to the system. The TP monitor is then able to route the request...databases and operating systems.

IBMs CICS/6000 - an application server that provides industrial-strength, online `$$$transaction$$$` processing and `$$$transaction$$$` management for mission-critical applications on both 113M and non-IBM platforms. CICS manages and...

...then native DCE or Tuxedo.

Tuxedo  
Functionality  
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Can handle a large number of concurrent `$$$client$$$` applications  
Can handle a large volume of through-put (ex. 1000+ TPS)  
Scaleable (handle many...at all. Resource Management Services use locking, commit, and rollback services, and are integrated with `$$$Transaction$$$` Management Services.

`$$$Transaction$$$` Management 2606  
Transaction Management Services coordinate transactions across one or more resource managers either on...

...are rolled back.

This services that allow multiple applications to share data with integrity. The `$$$transaction$$$` management services help implement the notion of a transaction -- a set of computations producing changes...  
...a problem arises on a network connection or a computer, the software will roll the `$$$transaction$$$` back so it will not be entered in either place. A restart mechanism may then...

...Open/OLTP

Transaction Partitioning 2608  
Transaction Partitioning Services provide support for mapping a single logical `$$$transaction$$$` in an application into the required multiple physical transactions. For example, in a package or...

...individual transactions occur across the different UNIX and MVS systems and that the single logical `$$$transaction$$$` is completed and successful when the individual physical transactions are completed and successful.

ENVIRONMENT 1016...Advances in Netcentric technologies now offer additional options for implementing state management on both the `$$$client$$$` and server machines.

#### Possible Product Options

NetDynamics Inc. NetDynamics

NetDynamics Inc. NeMynamics

NetDynainics provides built...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.

Handling of `%%client%%` `%%requests%%` for HTML pages. A Web browser initiates an HTTP request to the Web server either...Oracle WebServer A multi-threaded HTTP server that provides integrated features for translating and dispatching `%%client%%` HTTP `%%requests%%` directly to the Oracle7 Server using PL/SQL.

#### Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for reporting applications into the report architecture. The `%%client%%` initiates a report `%%request%%` to the report architecture by sending a message to the report initiation function. The responsibility...

...a workstation platform technology architecture.

This custom report process is responsible for processing all messages `%%requesting%%` generation, manipulation, or distribution of reports. The following services are provided in an environment including...

...provided for use within application programs and within the application report writer modules. Each API `%%requests%%` a specific report service (generation, printing, or deletion) which is performed by a report manager...name  
Date/time requested  
Status (requested, in process, complete, or error)  
Report-specific parameters.

The `%%requester%%` ID, report name, and date/time are used to uniquely identify the report. These values...

...process reads the messages from a queue and invokes the appropriate modules to handle each `%%request%%`. Subsequent process flows differ based upon the `%%requested%%` service. In the case of a report generation `%%request%%`, the process flow proceeds as follows.

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A record is added to the report status...

...status code is passed.

Request Report. The Request Report function is responsible for processing report `%%request%%` messages written to the report process queue. It creates a new entry in the report...

...a generated report output file to a specified or default printer. The report name and `%%requesting%%` process ID is passed to identify the report.

#### EVALUATION CRITERIA

There are two primary approaches...

...The report architecture should work with and support distribution of

reports generated on the workgroup %%%server%%%.

3. On-Demand Reports: The report architecture must support distribution of reports %%%requested%%% by users on demand. Typically, these reports will not have a set schedule or frequency...to invoke applications directly.

Is there a need for reporting and management facilities?  
Typical workflow %%%application%%% requirements are better general management %%%control%%% and better management of change. Proactive system action, audit trails and system administration features like...

...elapsed time, and work often moves from one processing site to another.  
As data and %%%application%%% logic are split, better %%%control%%% is needed to track processing/data status across location.

Will there be business process re...

...the steps and rules that govern how a sales order is fulfilled). As such, the %%%Application%%% Logic includes the %%%control%%% structure that specifies the flow for processing for business events and user requests. The isolation...occur. If all the business logic executes on the server, then the application on the %%%client%%% will make %%%requests%%% to the server whenever it needs to execute a business function. This could increase network...

...occur. If all the business logic executes on the server, then the application on the %%%client%%% will make %%%requests%%% to the server whenever it needs to execute a business  
251  
function. This could increase...

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00784138  
SYSTEM, METHOD, AND ARTICLE OF MANUFACTURE FOR A REQUEST BATCHER IN A TRANSACTION SERVICES PATTERNS ENVIRONMENT  
SYSTEME, PROCEDE ET ARTICLE MANUFACTURE POUR MODULE DE MISE EN LOTS DES REQUETES DANS UN ENVIRONNEMENT CARACTERISE PAR DES SERVICES TRANSACTIONNELS

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Detailed Description

Detailed Description

... client" and llserver" are used to refer to a computer's general role as a ###requester### of data (the ###client###) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the ###client### and cannot ###request### the ###client### to perform any action.

The communication model under the conventional Web environment provide's a...with

an embodiment of the present invention;

Figure 117 illustrates the manner in which a ###client### ###requests### information from server objects via a network;

Figure 1 1 8 illustrates the method of the present invention in which a ###client### ###requests### attributes from a server object via a network;

Figure 119 illustrates the transmitting of all...accordance with an embodiment of the present invention;

Figure 150 illustrates server components receiving service ###requests### ;

Figure 151 illustrates a load balancer mediating the requests of Figure 150; Figure 152 illustrates...the present invention registers requests;

Figure 188 illustrates a flowchart for a method for sorting ###requests### that are being unbatched from a batched message in accordance with an embodiment of the...by technologies.

Provide new architecture frameworks needed today to meet you're a user's ###client###'s business needs.

Provide guidance to define what architecture. best meets you're a user...

...most applications should ideally be based on a Netcentric Architecture, rather than on a traditional ###client###/server or a host-based architecture.

However choosing a generation is not just a technical...client/server

systems.

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The following sections identify the main characteristics associated with a Netcentric, %%%Client%%% Server or Host based technology generation. This list should in no way be considered complete...

...in Figure 7 and should assist one in identifying the appropriate answer for the specific %%%client%%% engagement.

Existing architecture and infrastructure 700

E1, Other Netcentric applications been developed and placed in...

...client has significant technology skills within its IT department.

This is especially important if the %%%client%%% plans on developing or operating the application themselves. A significant investment in training and changes to internal organizations may be necessary for successful deployment of this type of system. The %%%client%%% must have a culture that supports change. Some organizations are very conservative and strong, making it difficult to deliver a successful project using new technology.

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E3. The %%%client%%% has multiple hardware/operating system configurations for their client machines.

In traditional %%%client%%%/server environments, distributing an application internally or externally for an enterprise requires that the application be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal %%%Client%%% or web-browser may eliminate many of these problems by providing a consistent and familiar ...

...gaining momentum. Now users can access the Internet from a television set. Network Computers, thin-%%client%% devices that download and run applications from a centrally maintained server are generating a lot...

...serve a potentially large new audience.

Expanding the user community of a legacy host or %%%client%%%/server system by including an audience which is external to the company can result in...

...ensure existing legacy systems and infrastructure can absorb this increase.

Business imperatives 702

131. The %%%client%%% needs to reach a new external audience with this application.

5 1

This is probably...

...Netcentric architecture it is often possible to gain exposure to new customers and markets. The %%%client%%% can often achieve significant competitive advantage by providing new services and products to its customers...

...each customer can repeatedly and easy customize a product according to own preferences.

B2. The `%%client%%` needs to reach a large or diverse internal audience with this application.

Configuration management of traditional `%%client%%/server` applications, which tend to be physically distributed across both the `%%client%%` and server, is a major issue for many corporations. The software distribution of such applications...

...an update is made, a process must be initiated to distribute new code to all `%%client%%` machines. The browser-centric application style offers an alternative to this traditional problem of distributing...

...is an early adopter of new technology.  
Implementation of a Netcentric architecture can help the `%%client%%` realize a number of business benefits. However, the introduction of new technology into an organization...internal and external users of the systems.

Client/server network generation

If, based upon a `%%client%%`'s requirements, most of the statements of Figure 8 are true, one should consider an...

...in Figure 8 and should assist one in identifying the appropriate answer for your specific `%%client%%` engagement.

Existing architecture and infrastructure 800

E1. Other Client Server applications been developed and placed...

...architecture concepts.

As with any new technology, there is a learning curve related to attaining `%%client%%` server development skills. The development process is often much more efficient when familiar tools and...

...nents due to the fact that executable and data files need to reside on the `%%client%%` hard drive.

Distribution to a user community outside of the client's organization is even...

...is critical to the application or sub-second response times are required for successful use.

`%%Client%%` server applications can provide response times necessary to support transaction intensive mission critical systems. Application logic and business data can be distributed between the `%%client%%` and server for optimal efficiency. Web-based interfaces still have an inherent overhead due to...

...the necessary resources, organizations and processes to maintain a Client Server application.

Introduction of a `%%Client%%` Server application to a company's production environment can require a great deal of change...

...Operations and Development architectures required to develop, run and support the production systems. Before a `%%Client%%` Server application is developed, it is important that the `%%client%%` identify how a system of this type will fit within the company's strategic technology... Services 1000, Information Services 1002,1004, Communication Services 1006,1008, Communication Fabric Services 1010, `%%Transaction%%` Services 1012,1014, Environment Services 1016,1018, Base Services 1020 and Business Logic 1022,1024...client/server design concepts and considerations still apply to NCC.

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The important differences between `%%client%%/server` systems and NCC systems are.

The way in which the application logic is distributed to clients is different in NCC and traditional `%%client%%/server` systems. In NCC systems, application logic can be packaged into components and distributed from...

...within a client that can run on multiple operating systems and hardware platforms. In traditional `%%client%%/server` systems, the `%%client%%` is custom-made for a specific operating system and hardware platform.

The way in which NCC and traditional `%%client%%/server` systems can be extended and adapted is different. Components enable NCC systems to be adaptable to a variety of distribution styles, from a "thin `%%client%%`" to a "fat `%%client%%`". In comparison, traditional client/server systems, once designed and built, cannot be adapted for use...

...are usually implemented on UNIX, NT or mainframe machines.

A key design decision for a `%%client%%/server` system is whether it should be two-tiered or multi-tiered and how business...

...is the prominent configuration in use today by companies which have attempted to migrate to `%%client%%/server` based computing.

#### Advantages

At a minimum, a two-tiered `%%client%%/server` architecture assumes that an application's presentation logic resides on the client and its...

...or "fat-client" two-tiered model where the presentation and application logic resides on the `%%client%%` and data management resides on the server. In fact, the use of these tools "out..."

...integration of distributed transaction processing middleware. This model of computing is often termed the "enhanced" `%%client%%/server`

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model. Most Netcentric architectures use a three- or four tiered approach with a web server and potentially a separate application server layer.

In the enhanced `%%client%%/server` model, all presentation and control logic resides on the client, all application logic resides...

...resides on multiple back-end database servers.



#### Advantages

In contrast to mainframe and two-tiered `client/server` computing models, the principle advantage with a three-tiered enhanced `client/server` architecture is that it provides the benefits of a GUI application, but also provides...

...tuned for the work they perform.

Database scaleable on throughput - In the enhanced three-tiered `client/server` model, client applications no longer connect directly to database servers. Instead, only application servers...communication protocols are supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the `client requests` into specific server calls. It handles security, authentication, statistics gathering and some system management tasks...What type of conversation control is required? RPCs permit one side of the conversation (the `client`) to only make `requests`, while the other side (the server) may only make replies. Conversation control is passed from the client to the server since the `client`, for each `request`, causes one or more functions to execute on the server while it waits for its ...improve performance by 133

utilizing special techniques used to invoke the server every time a `client request` arrives.

Performance should be considered as a product differentiator.

What level of security is required...ACID) characteristics.

transaction is atomic; if interrupted by failure, all effects are undone (rolled back).

`transaction` produces consistent results; the effects of a transaction preserve invariant properties.  
A transaction is isolated; its intermediate states are not visible to other `transactions`.

`Transactions` appear to execute serially, even if they are performed concurrently.

A transaction is durable; the...

...provided by the DBMS software with its re-start/recovery and integrity capabilities.

For larger `client/server` environments distributed on-line transaction managers might be more applicable. These transaction managers provide...has this quality is a candidate for a TP monitor.

Is the system not a `transaction` processing system?  
Although TP monitors provide global two-phase commit "`transaction` processing" functionality, systems that do not need this feature can also benefit by using TP...

...ability to route requests to a particular server based upon the data passed within the `request`. TP monitors can provide this functionality.

e.g. A system has several servers accepting requests...

...dispersed across North America. There are two groups of servers. One group of servers handles `%%requests%%` from all clients located in the USA while the other group serves requests from Canada. When a `%%client%%` sends a `%%request%%` to the system, a field in the `%%request%%` message, defining the location of the `%%client%%`, is passed to the system. The TP monitor is then able to route the request... databases and operating systems.

IBMs CICS/6000 - an application server that provides industrial-strength, online `%%transaction%%` processing and `%%transaction%%` management for mission-critical applications on both IBM and non-IBM platforms. CICS manages and...

...better than native DCE or Tuxedo.

Tuxedo

Functionality

Can handle a large number of concurrent `%%client%%` applications  
Can handle a large volume of through-put (ex. 1 000+ TPS)  
Scaleable (handle...at all. Resource Management Services use locking, commit, and rollback services, and are integrated with `%%Transaction%%` Management Services.

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`%%Transaction%%` Management 2606

`%%Transaction%%` Management Services coordinate transactions across one or more resource managers either on a single machine...

...are rolled back.

This services that allow multiple applications to share data with integrity. The `%%transaction%%` management services help implement the notion of a transaction -- a set of computations producing changes...

...persistent.

Two-Phase Commit is a feature found in distributed database management systems and online `%%transaction%%` processing (OLTP) monitors to ensure information integrity across distributed databases. With this feature, a transaction...

...not be entered in either place. A restart mechanism may then retriy to complete the `%%transaction%%`.

Possible Product Options

Tuxedo; Encina; TOP END; CICS/6000; openUTM; TransIT Open/OLTP

Transaction Partitioning 2608

200

Transaction Partitioning Services provide support for mapping a single logical `%%transaction%%` in an application into the required multiple physical transactions. For example, in a package or...

...systems and that the single logical transaction is completed and successful when the individual physical `%%transactions%%` are completed and successful.

ENVIRONMENT 1016,1018

Figure 27 illustrates various components of the Environmental...Advances in Netcentric technologies now offer additional options for implementing state management on both the `%%client%%` and server machines.

Possible Product Options

NetDynamics Inc. NetDynamics

NetDynamics Inc. NetDynamics

NetDynamics provides built...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.

Handling of `%%client%%` `%%requests%%` for HTML pages. A Web browser initiates an HTTP request to the Web server either...Oracle WebServer A multi-threaded HTTP server that provides integrated features for translating and dispatching `%%client%%` HTTP `%%requests%%` directly to the Oracle7 Server using PL/SQL.

Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for reporting applications into the report architecture. The `%%client%%` initiates a report `%%request%%` to the report architecture by sending a message to the report initiation function. The responsibility...

...are forwarded to the report writer process at the current or specified time. All report `%%requests%%` are processed in an asynchronous manner (for example, service requesters do not wait for completion...

...name

Date/time requested

Status (requested, in process, complete, or error)

Report-specific parameters.

The `%%requester%%` ID, report name, and date/time are used to uniquely identify the report. These values...reads the messages from a queue and invokes the appropriate

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modules to handle each `%%request%%`. Subsequent process flows differ based upon the `%%requested%%` service. In the case of a report generation request, the process flow proceeds as follows...

...in the original API request, and updates the status in the report status table.

A `%%request%%` to print a report proceeds as follows.

The report status is retrieved from the report...

...file is located on disk and sent to the specified or default printer or the `%%request%%` is sent to the event manager for report scheduling. Report deletion proceeds as follows.

The...

...been previously requested for generation by the calling process. Returned is a list containing the `%%requested%%` data as well as the number of reports found.

Control Reports. The Control Reports function...

...status code is passed.

Request Report. The Request Report function is responsible for processing report `%%request%%` messages written to the report process queue. It creates a new entry in the report...

...a generated report output file to a specified or default printer. The report name and `%%requesting%%` process ID is passed to identify the report.

#### EVALUATION CRITERIA

There are two primary approaches...

...The report architecture should work with and support distribution of reports generated on the workgroup `%%server%%`.

3. On-Demand Reports: The report architecture must support distribution of reports `%%requested%%` by users on demand. Typically, these reports will not have a set schedule or frequency...the steps and rules that govern how a sales order is fulfilled). As such, the `%%Application%%` Logic includes the `%%control%%` structure that specifies the flow for processing for business events and user requests. The isolation...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...

...software distribution.

Another factor to consider is how the business logic is distributed between the `%%client%%` and the server(s) - where the business logic is stored and where the business logic...

...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...

...with the server is needed. This type of an architecture might introduce complexities into the `%%application%%` that deal with the sharing of and reliance on central data across many users.

247...each other. Business Entity Components 4002 and Business Process Components 4004 typically reside on a `%%server%%`, while User Interface Components 4006 typically reside on a client.

Figure 41 illustrates what makes...to-business

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transactions. To do this, the Web must evolve into a full-blown `%%client%%/%%server%%` medium that can run your line-of-business applications (i.e., a delivery vehicle for...

00784137

SYSTEM, METHOD, AND ARTICLE OF MANUFACTURE FOR DISTRIBUTED GARBAGE  
COLLECTION IN ENVIRONMENT SERVICES PATTERNS  
SYSTEME, PROCEDE ET ARTICLE DE FABRICATION EN MATIERE DE RECUPERATION  
D'ESPACE REPARTI DANS DES MOTIFS DE SERVICES D'ENVIRONNEMENT

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Detailed Description

Detailed Description

... client" and llserver" are used to refer to a computer's general role  
as a %%%requester%%% of data (the %%%client%%%) or provider of data (the  
server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts  
commands from the %%%client%%% and cannot %%%request%%% the %%%client%%%  
to perform any action.

The communication model under the conventional Web environment provides a  
very...

...the present invention, each of the clients may maintain a collection of  
all objects the %%%client%%% is interested in. The clients then may send  
requests to keep alive any objects the...with  
an embodiment of the present invention;  
Figure 117 illustrates the manner in which a %%%client%%% %%%requests%%%  
information from server objects via a  
network;

Figure 118 illustrates the method of the present invention in which a  
%%%client%%% %%%requests%%% attributes  
from a server object via a network;  
Figure 119 illustrates the transmitting of all...of the present  
invention;  
Figure 186 illustrates the manner in which the present invention sends  
%%%requests%%% independently; Figure 187 illustrates a manner in which  
the present invention registers %%%requests%%%; Figure 188 illustrates a  
flowchart for a method for sorting requests that are being unbatched...s  
Java language solves many of the client-side problems by.

Improving performance on the %%%client%%% side;  
Enabling the creation of dynamic, real-time Web applications; and  
Providing the ability to...business capabilities that are offered by  
technologies rather than just on definitions for what is %%%client%%%  
/server or what is Netcentric technology.

Delivery vehicle matrix  
Figure 4 illustrates a delivery vehicle...

...by technologies.

Provide new architecture frameworks needed today to meet you're a user's  
%%%client%%%s business needs.

Provide guidance to define what architecture best meets you're a user...

...type of contentclient, one may need to tailor the information they  
present based on the %%%client%%%s background and the terminology they  
are familiar with.

Technology Generation Selection

Introduction

This section...of factors which are completely non-technical in nature,  
such as financial factors, internal and %%%client%%% politics (say no  
more), and implementation/operational considerations.

When deciding whether to employ a Netcentric...

...client has significant technology skills within its IT department.

This is especially important if the %%%client%%% plans on developing or  
operating the application themselves. A significant investment in  
training and changes...

...gaining momentum. Now users can access the Internet from a television  
set. Network Computers, thin-%%%client%%% devices that download and run  
applications from a centrally maintained server are generating a lot...

...serve a potentially large new audience.

Expanding the user community of a legacy host or %%%client%%%/server  
system by including an audience which is external to the company can  
result in...

...ensure existing legacy systems and infrastructure can absorb this  
increase.

Business imperatives 702

B1. The `%%client%%` needs to reach a new external audience with this application.

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This is probably the...

...Netcentric architecture it is often possible to gain exposure to new customers and markets. The `%%client%%` can often achieve significant competitive advantage by providing new services and products to its customers...

...a large or diverse internal audience with this application.

I 0 Configuration management of traditional `%%client%%/server` applications, which tend to be physically distributed across both the `%%client%%` and server, is a major issue for many corporations. The software distribution of such applications...an update is made, a process must be initiated to distribute new code to all `%%client%%` machines. The browser-centric application style offers.

an alternative to this traditional problem of distributing functionality to both internal and external users.

IT guiding principles 704

G1. The `%%client%%` is an early adopter of new technology.

Implementation of a Netcentric architecture can help the `%%client%%` realize a number of business benefits. However, the introduction of new technology into an organization does have inherent risks and can result in a significant amount of change. The `%%client%%` should have a culture which can embrace these necessary changes.

G2. Applications should be developed...

...the statements of Figure 8 are true, one should consider an application based upon the `%%Client%%` Server technology generation.

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The following section details the importance of each of the statements...

...infrastructure 800

E1. Other Client Server applications been developed and placed in production and the `%%client%%` IT organization contains personnel familiar with `%%client%%` server architecture concepts.

As with any new technology, there is a learning curve related to attaining `%%client%%` server development skills. The development process is often much more efficient when familiar tools and...

...are used. The introduction of new technology can also create instability in the operations environment. `%%Client%%/server` systems still represent a new technology to many IT departments.

Business imperatives 802

B1...

...environments due to the fact that executable and data files need to reside on the %%%client%%% hard drive.

Distribution to a user community outside of the client's organization is even...

...is critical to the application or sub-second response times are required for successful use.

%%Client%% server applications can provide response times necessary to support transaction intensive mission critical systems. Application...

...place, therefore, connectivity to a server can not be assumed for all user classes. A %%%client%%% server architecture allows for the distribution of application logic and/or data between the server...

...necessary for applications that are run on portable computers.

IT guiding principles 804

G1. The %%%client%%% maintains their applications internally and the IT department has 1 5 the necessary resources, organizations and processes to maintain a %%Client%% Server application.

Introduction of a Client Server application to a company's production environment can...

...in Figure 9 and should assist you in identifying the appropriate answer for your specific %%%client%%% engagement.

Existing architecture and infrastructure 900

E1. The client currently maintains and operates host based...over a network. In traditional client/server systems, the application logic is split between the %%%client%%% and the server on a permanent basis; there is no dynamic distribution of application logic...

...NCC extends the traditional two-tier client/server architecture to a n-tier architecture.

The %%%client%%% in NCC systems is different from a %%%client%%% in traditional %%%client%%%/server systems.

The %%%client%%% in a NCC system is a standardized universal one; a NCC application can execute within...

...is the prominent configuration in use today by companies which have attempted to migrate to %%%client%%%/server based computing.

Advantages

At a minimum, a two-tiered %%%client%%%/server architecture assumes that an application's presentation logic resides on the client and its...

...integration of distributed transaction processing middleware. This model of computing is often termed the "enhanced" %%%client%%%/server

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model. Most Netcentric architectures use a three- or four tiered approach with a web server and potentially a separate application server layer.

In the enhanced %%%client%%%/server model, all presentation and control



logic resides on the client, all application logic resides...

...resides on multiple back-end database servers.

#### Advantages

In contrast to mainframe and two-tiered `%%client%%/server` computing models, the principle advantage with a three-tiered enhanced client/server architecture is...tuned for the work they perform.

Database scaleable on throughput - In the enhanced three-tiered `%%client%%/server` model, `%%client%%` applications no longer connect directly to database servers. Instead, only application servers connect to the...reduce the application logic complexity inherent to an interactive windowed interface.

#### Implementation considerations

In traditional `%%client%%/server` applications, Forms are windows that contain widgets (text fields, combo-boxes, etc.) and business...ad hoc reporting queries or data warehousing applications can work with a replica of the `%%transaction%%` database, these resource intensive applications will not interfere with mission critical transaction processing. Replication can...of communication protocols are supported including NetBIOS, SNA, DecNET, TCPAP. The main engine translates the `%%client%%`

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`%%requests%%` into specific server calls. It handles security, authentication, statistics gathering and some system management tasks... print services for NT networks.

Line Printer Daemon (LPD) - UNIX print management facilities, which include `%%client%%` and server utilities for spooling print jobs. Related programs include `lpr` (sends print job to...type of conversation control is required?

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RPCs permit one side of the conversation (the `%%client%%`) to only make `%%requests%%`, while the other side (the server) may only make replies. Conversation control is passed from the client to the server since the `%%client%%`, for each `%%request%%`, causes one or more functions to execute on the server while it waits for its...

...may improve performance by utilizing special techniques used to invoke the server every time a `%%client%% %%request%%` arrives.

Performance should be considered as a product differentiator.

What level of security is required...proxy manages a database of allowed user actions, which it checks prior to performing the `%%request%%`.

Servers, Applications, and Databases - Authorization can occur locally on a server to limit access to...

...Microsoft Windows NT; Novell Netware; UNIX; Check Points Firewall-1; Raptor Systems Eagle Firewall; Microsoft `%%Proxy%% %%Server%%`; Netscape `%%Proxy%% %%Server%%`; Microsystem Softwares Cyber Patrol Corporate; Net Nanny Softwares Net Nanny network operating systems Microsoft Windows NT, Novell Netware, UNIX, etc.

application proxies  
Microsoft `%%Proxy%%` `%%Server%%` - allows for designation of who can access the Internet and which services they can use...

...hours or days of the week, and restrict access to certain sites altogether.

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Netscape `%%Proxy%%` `%%Server%%` - high-performance `%%server%%` software for replicating and filtering access to Web content on the Internet or an intranet...all effects are undone (rolled back).

A transaction produces consistent results; the effects of a `%%transaction%%` preserve invariant properties.

A `%%transaction%%` is isolated; its intermediate states are not visible to other transactions.

Transactions appear to execute serially, even if they are performed concurrently.

A `%%transaction%%` is durable; the effects of a completed transaction are persistent; they are never lost (except...

...Communication Services provide for load balancing across processors or machines and location transparency for distributed `%%transaction%%` processing.

Implementation considerations

Does the system access nonrelational data?

Some TP monitors provide a method...has this quality is a candidate for a TP monitor.

Is the system not a `%%transaction%%` processing system?

Although TP monitors provide global two-phase commit "transaction processing" functionality, systems that...

...dispersed across North America. There are two groups of servers. One group of servers handles `%%requests%%` from all clients located in the USA while the other group serves requests from Canada. When a `%%client%%` sends a `%%request%%` to the system, a field in the `%%request%%` message, defining the location of the `%%client%%`, is passed to the system. The TP monitor is then able to route the `%%request%%` to the correct group of servers (USA or Canada) based upon information in the request message.

Is Reliable Queueing Necessary?

TP monitors provide the ability to enqueue and dequeue `%%requests%%` to and from a reliable (stable storage) queue. Both the application and the administrator can...systems.

IBMs CICS/6000 - an application server that provides industrial-strength, online transaction processing and `%%transaction%%` management for mission-critical applications on both IBM and non-IBM platforms. CICS manages and...

...then native DCE or Tuxedo.

Tuxedo  
Functionality  
197

Can handle a large number of concurrent `%%client%%` applications  
Can handle a large volume of through-put (ex. 1000+ TPS)  
Scaleable (handle many...

...Cobol development

Can be used for basic c/s messaging  
Supports conversational messaging between a `%%client%%` and a specific server  
Peer-to-peer, client-to-client messaging is supported  
Unsolicited messaging...Management Services use locking, commit, and rollback services, and are integrated with Transaction Management Services.

`%%Transaction%%` Management 2606

`%%Transaction%%` Management Services coordinate transactions across one or more resource managers either on a single machine...

...to share data with integrity. The transaction management services help implement the notion of a `%%transaction%%` -- a set of computations producing changes to recoverable data which demonstrate the ACID properties.

Atomicity...

...persistent.

Two-Phase Commit is a feature found in distributed database management systems and online `%%transaction%%` processing (OLTP) monitors to ensure information integrity across distributed databases. With this feature, a transaction...

...not be entered in either place. A restart mechanism may then retriuy to complete the `%%transaction%%`.

Possible Product Options

Tuxedo; Encina; TOP END; CICS/6000; openUTM; TransIT Open/OLTP

Transaction Partitioning 2608

Transaction Partitioning Services provide support for mapping a single logical `%%transaction%%` in an application into the required multiple physical transactions. For example, in a package or...

...systems and that the single logical transaction is completed and successful when the individual physical `%%transactions%%` are completed and successful.

ENVIRONMENT 1016,1018

Figure 27 illustrates various components of the Environmental...Web style computing. Microsofts Web browser, Internet Explorer, is an ActiveX container. Therefore, any ActiveX `%%control%%` can be downloaded to, and plugged into the browser. This allows for executable components to...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.

Handling of `%%client%%` `%%requests%%` for HTML pages. A Web browser

initiates an HTTP request to the Web server either...Oracle WebServer  
A multi-threaded HTTP server that provides integrated features for  
translating and dispatching `%%client%%` HTTP `%%requests%%` directly to  
the Oracle7 Server using PL/SQL.

#### Push Pull Services (2840)

Push/Pull Serv...The report initiation function is the interface for  
reporting applications into the report architecture. The `%%client%%`  
initiates a report `%%request%%` to the report architecture by sending a  
message to the report initiation function. The responsibility writer  
process 3102.

#### Design Approach

For the report process in a `%%client%%/server` system, a set of APIs is  
provided for use within application programs and within...  
...internal database table, a report status table, containing information  
about each report that has been `%%requested%%` for generation,  
including.

#### Requester ID

Report name

Date/time requested

Status (`%%requested%%`, in process, complete, or error)

Report-specific parameters.

The requester ID, report name, and date/time are used to uniquely  
identify the report. These values are passed to APIs which `%%request%%`  
report status, print or delete a previously generated report.

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All application-defined report writer...

...process flows differ based upon the requested service. In the case of a  
report generation `%%request%%`, the process flow proceeds as follows.

A record is added to the report status table...

...report writer module generates the report, prints it if specified in the  
original A-PI `%%request%%`, and updates the status in the report status  
table.

A request to print a report...

...file is located on disk and sent to the specified or default printer or  
the `%%request%%` is sent to the event manager for report scheduling.

229

Report deletion proceeds as follows...

...The Get Report Status function retrieves status information about all  
reports that have been previously `%%requested%%` for generation by the  
calling process. Returned is a list containing the requested data as...

...responsible for performing various operations on reports. The following  
services are provided.

Delete a report `%%request%%` and any associated output  
Print a previously generated report.

Update report status.

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In all...

...name is passed. For status update, the new status code is passed.

Request Report. The `Request` Report function is responsible for processing report `request` messages written to the report process queue. It creates a new entry in the report...have the authority to do the same work, such as claims adjusters; just assign the `request` to the next available person. In addition, a process or agent can assume a role...entries to be modified.

Is there a need for reporting and management facilities?  
Typical workflow `application` requirements are better general management `control` and better management of change. Proactive system action, audit trails and system administration features like...the steps and rules that govern how a sales order is fulfilled). As such, the `Application` Logic includes the `control` structure that specifies the flow for processing for business events and user requests. The isolation...

...occur. If all the business logic executes on the server, then the application on the `client` will make `requests` to the server whenever it needs to execute a business function. This could increase network...occur. If all the business logic executes on the server, then the application on the `client` will make `requests` to the server whenever it needs to execute a business function. This could increase network...

9/3,K/9 (Item 7 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00784136

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR BUSINESS LOGIC SERVICES PATTERNS IN A NETCENTRIC ENVIRONMENT  
SYSTEME, PROCEDE ET ARTICLE DE FABRICATION POUR STRUCTURES DE SERVICES DE LOGIQUE DE COMMERCE DANS UN ENVIRONNEMENT S'ARTICULANT AUTOUR DE L'INTERNET

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Detailed Description

Detailed Description

... client" and llserver" are used to refer to a computer's general role as a %%%requester%% of data (the %%%client%%) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the %%%client%% and cannot %%%request%% the %%%client%% to perform any action.

The communication model under the conventional Web environment provides a very...with

an embodiment of the present invention;

Figure 117 illustrates the manner in which a %%%client%% %%%requests%% information from server objects via a network;

Figure 118 illustrates the method of the present invention in which a %%%client%% %%%requests%% attributes from a server object via a network;

Figure 119 illustrates the transmitting of all...

...depicts the flow of control during Structure Based Communication;

Figure 122 shows Five Styles of %%%Client%%/Server Computing;

Figure 123 illustrates a flowchart for a method for providing an activity module...A and C, deletes C but fails to delete A; Figure 140 illustrates a GarbageCollector %%%requesting%% for interest in context A; Figure 141 illustrates a GarbageCollector requesting for interest in context...

Generic Message Forwarding feature;

Figure 185 illustrates a flowchart for a method for batching logical %%%requests%% for reducing network

traffic in accordance with an embodiment of the present invention;

Figure 186...

...Ad Hoc Registration feature;

Figure 190 illustrates a manner in which the present invention sorts %%%requests%% by weight; Figure 191 illustrates a flowchart for a method for assigning independent copies of...Custom "widgets" (e.g., real-time stock tickers'animated icons, etc.) can be created, and %%%client%%-side performance is improved. Unlike HTML, Java supports the notion of %%%client%%-side validation, offloading appropriate processing onto the client for improved performance. Dynamic, real-time Web...business capabilities that are offered by technologies rather than just on

definitions for what is %%%client%%%/server or what is Netcentric technology.

Delivery vehicle matrix

Figure 4 illustrates a delivery vehicle...new applications. A typical scenario can involve mainframe legacy systems acting as servers in a %%%client%%% server architecture, application servers being accessed from both traditional GUI clients built in Powerbuilder and...

...most applications should ideally be based on a Netcentric Architecture, rather than on a traditional %%%client%%%/server or a host-based architecture.

However choosing a generation is not just a technical...

...of factors which are completely non-technical in nature, such as financial factors, internal and %%%client%%% politics (say no more), and implementation/operational considerations.

When deciding whether to employ a Netcentric...client/server systems usually keep a substantial portion of the business logic on a fat %%%client%%%, while Netcentric architectures still favor keeping most business logic at the server side. Also Netcentric...

...already been successfully piloted or deployed, acceptance of additional systems will be eased.

E2. The %%%client%%% has significant technology skills within its IT department.

This is especially important if the client...

...to internal organizations may be necessary for successful deployment of this type of system. The %%%client%%% must have a culture that supports change. Some organizations are very conservative and strong, making it difficult to deliver a successful project using new technology.

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E3. The %%%client%%% has multiple hardware/operating system configurations for their %%%client%%% machines.

In traditional %%%client%%%/server environments, distributing an application internally or externally for an enterprise requires that the ...

...be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal %%%Client%%% or web-browser may eliminate many of these problems by providing a consistent and familiar...

...gaining momentum. Now users can access the Internet from a television set. Network Computers, thin-%%%client%%% devices that download and run applications from a centrally maintained server are generating a lot...

...ensure existing legacy systems and infrastructure can absorb this increase.

Business imperatives 702

B1. The %%%client%%% needs to reach a new external audience with this application.

51

This is probably the...

...Netcentric architecture it is often possible to gain exposure to new customers and markets. The %%%client%%% can often achieve significant competitive advantage by providing new services and products to its customers...

...each customer can repeatedly and easy customize a product according to own preferences.

B2. The %%%client%%% needs to reach a large or diverse internal audience with this application.

Configuration management of...

...an update is made, a process must be initiated to distribute new code to all %%%client%%% machines. The browser-centric application style offers an alternative to this traditional problem of distributing functionality to both internal and external users.

IT guiding principles 704

G1. The %%%client%%% is an early adopter of new technology.

Implementation of a Netcentric architecture can help the %%%client%%% realize a number of business benefits. However, the introduction of new technology into an organization does have inherent risks and can result in a significant amount of change. The %%%client%%% should have a culture which can embrace these necessary changes.

G2. Applications should ...Netcentric architecture simplifies frequent software releases for both internal and external users of the systems.

%%Client%%/server network generation

If, based upon a client's requirements, most of the statements of...

...in Figure 8 and should assist one in identifying the appropriate answer for your specific %%%client%%% engagement.

Existing architecture and infrastructure 800

E1. Other %%%Client%%% Server applications been developed and placed in production and the %%%client%%% IT organization contains personnel familiar with %%%client%%% server

architecture concepts,

As with any new technology, there is a learning curve related to...

...are used. The introduction of new technology can also create instability in the operations environment. %%%Client%%/server systems still represent a new technology to many IT departments.

Business imperatives 802

B1...

...be used only by an internal user community.

Software distribution is a concern for traditional %%%client%%% server computing environments due to the fact that executable and data files need to reside on the client hard drive.



Distribution to a user community outside of the %%%client%%% organization is even more difficult to implement and manage and will probably be limited...

...place, therefore, connectivity to a server can not be assumed for all user classes. A %%%client%%% server architecture allows for the distribution of application logic and/or data between the server and %%%client%%%. Replication of data and logic is usually necessary for applications that are run on portable...

...the appropriate answer for your specific client engagement.

Existing architecture and infrastructure 900

El. The %%%client%%% currently maintains and operates host based applications and the IT organization contains personnel familiar with... and distributed from a server machine to a client machine over a network. In traditional %%%client%%%/server systems, the application logic is split between the client and the server on a...

...is no dynamic distribution of application logic.

The number of tiers in NCC and traditional %%%client%%%/server systems is different. NCC extends the traditional two-tier %%%client%%%/server architecture to a n-tier architecture.

The %%%client%%% in NCC systems is different from a %%%client%%% in traditional %%%client%%%/server systems.

The %%%client%%% in a NCC system is a standardized universal one; a NCC application can execute within...

...processes. Server processes respond to messages from clients.

62

Business logic can reside on both %%%client%%% and server. Clients are typically PCs or Workstations with a graphical user interface running in ...

...is the prominent configuration in use today by companies which have attempted to migrate to %%%client%%%/server based computing.

Advantages

At a minimum, a two-tiered client/server architecture assumes that...

...logic resides on the server. This style of computing became attractive to early adopters of %%%client%%%/server because it clearly addresses the inadequacies of a character-based interface. That is, it...

...approach with a web server and potentially a separate application server layer.

In the enhanced %%%client%%%/server model, all presentation and control logic resides on the client, all application logic resides...

...resides on multiple back-end database servers.

Advantages

In contrast to mainframe and two-tiered %%%client%%%/server computing

models, the principle advantage with a three-tiered enhanced client/server architecture is...utilized for specific talents in each tier.

65

Allows for asynchronous and standardized messaging - The enhanced client/server model is really a superset of the RPC-based function shipping model which provides...

...the application logic complexity inherent to an interactive windowed interface.

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Implementation considerations

In traditional client/server applications, Forms are windows that contain widgets (text fields, combo-boxes, etc.) and business... communication protocols are supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the client requests into specific server calls. It handles security, authentication, statistics gathering and some system management tasks...What type of conversation control is required?

RPCs permit one side of the conversation (the client) to only make requests, while the other side (the server) may only make replies. Conversation control is passed from the client to the server since the client, for each request, causes one or more functions to execute on the server while it waits for its...the C language). This means that control is passed from the main logic of a program to the called function, with control returning to the main program once the called function completes its task.

Because RPCs perform this...ported to multiple hardware platforms/operating systems.

CTI Enabling Solutions - focus solely on call control and call/application synchronization functions.

CTI Enterprise Solutions - provide all CTI business functions to varying degrees.

Possible Product...MIME - a secure version of the MIME e-mail standard.

Authorization 1554

When a user requests access to network resources, the Authorization service determines if the user has the appropriate permissions...

...Network Operating Systems - Authorization services are bundled with all network operating systems in order to control user access to network resources.

162

Firewall Services protect sensitive resources and information attached to ...

...proxy manages a database of allowed user actions, which it checks prior to performing the request.

Servers, Applications, and Databases - Authorization can occur locally on a server to limit access to...Nanny network operating systems

Microsoft Windows NT, Novell Netware, UNIX, etc.

application proxies

163

Microsoft `%%Proxy%%` `%%Server%%` - allows for designation of who can access the Internet and which services they can use...back).

A transaction produces consistent results; the effects of a transaction preserve invariant properties.

A `%%transaction%%` is isolated; its intermediate states are not visible to other transactions.

Transactions appear to execute...

...if they are performed concurrently.

A transaction is durable; the effects of a completed `%%transaction%%` are persistent; they are never lost (except in a catastrophic failure). A transaction can be...

...in one of two ways: the transaction is either committed or rolled back. When a `%%transaction%%` is committed, all changes made by the associated requests are made permanent. When a transaction...has this quality is a candidate for a TP monitor.

Is the system not a `%%transaction%%` processing system?  
Although TP monitors provide global two-phase commit "`%%transaction%%` processing" functionality, systems that do not need this feature can also benefit by using TP...

...servers handles requests from all clients located in the USA while the other group serves `%%requests%%` from Canada. When a `%%client%%` sends a `%%request%%` to the system, a field in the request message, defining the location of the client...

...request to the correct group of servers (USA or Canada) based upon information in the `%%request%%` message.

Is Reliable Queueing Necessary?  
TP monitors provide the ability to enqueue and dequeue requests...put (ex. 1000+ TPS)  
Scaleable (handle many clients or a few without code rewrite)  
Supports `%%Transactions%%`, including XA `%%transactions%%`  
Has its own transaction resource manager  
Guaranteed message delivery using a stable storage queue (/Q...

...Supports conversational messaging between a client and a specific server  
Peer-to-peer, client-to-`%%client%%` messaging is supported  
Unsolicited messaging is supported for client processes  
Asynchronous service calls can be...are made completely (committed) or not at all (roll-back)..

Consistency - the effects of a `%%transaction%%` preserve invariant properties.

Isolation - intermediate data values are not visible to other

transactions.

Durability - the...

- ...across distributed  
transact on processing (OLTP) monitors to ensure I  
databases. With this feature, a `%%transaction%%` is only committed if two  
databases have the necessary information. If a problem arises on...
- ...not be entered in either place. A restart mechanism may then retri to  
complete the `%%transaction%%`.

#### Possible Product Options

Tuxedo; Encina; TOP END; CICS/6000; openUTM; TransIT Open/OLTP

`%%Transaction%%` Partitioning 2608

Transaction Partitioning Services provide support for mapping a single  
logical transaction in an...because there are more types of users (e.g.,  
employees, customers) and additional types of `%%transactions%%` (e.g.,  
e-commerce, help-desks). In traditional client/server environments most  
users are employees...

- ...an understandable explanation of what has happened and coordinating with  
other services to ensure that `%%transactions%%` and data are restored to  
a consistent state.

Logging Services support the logging of informational...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.  
Handling of `%%client%%` `%%requests%%` for HTML pages. A Web browser  
initiates an HTTP request to the Web server either...Oracle WebServer  
A multi-threaded HTTP server that provides integrated features for  
translating and dispatching `%%client%%` HTTP `%%requests%%` directly to  
the Oracle7 Server using PL/SQL.

#### Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for  
reporting applications into the report architecture. The `%%client%%`  
initiates a report `%%request%%` to the report architecture by sending a  
message to the report initiation function. The responsibility...

- ...required for the report. This function would utilize the Information  
Access Services component of the `%%client%%/%%server%%` architecture.

Format the information. This function is responsible for formatting the  
collected information into the...

- ...internal database table, a report status table, containing information  
about each report that has been `%%requested%%` for generation,  
including.

`%%Requester%%` ID

Report name

Date/time requested

Status (requested, in process, complete, or error)

Report-specific parameters.

The `%%requester%%` ID, report name, and date/time are used to uniquely  
identify the report. These values...is also provided to print the report

after the generation if specified in the original `%%request%%`.

Processed report records are removed from the table only after the output reports have been...

...process reads the messages from a queue and invokes the appropriate modules to handle each `%%request%%`. Subsequent process flows differ based upon the requested service. In the case of a report...

...responsible for performing various operations on reports. The following services are provided.

Delete a report `%%request%%` and any associated output  
Print a previously generated report.  
Update report status.

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In all...

...service, a printer name is passed. For status update, the new status code is passed.

`%%Request%%` Report. The `%%Request%%` Report function is responsible for processing report request messages written to the report process queue. It creates a new entry in the report status table with a status of `%%requested%%` and initiates the report writer process for immediate generation or sends a message to the...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...

...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...

9/3,K/10 (Item 8 from file: 349)  
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00784135

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A LOCALLY ADDRESSABLE  
INTERFACE IN A COMMUNICATION SERVICES PATTERNS ENVIRONMENT  
SYSTEME, PROCEDE ET ARTICLE DE PRODUCTION METTANT EN OEUVRE UNE INTERFACE  
ADRESSABLE LOCALEMENT DANS UN ENVIRONNEMENT DE CONFIGURATIONS DE  
SERVICES DE COMMUNICATION

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Detailed Description

#### Detailed Description

... client" and Viserver" are used to refer to a computer's general role as a %requester% of data (the %client%) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the %client% and cannot %request% the %client% to perform any action.

The communication model under the conventional Web envirom-nent provides a...with  
an embodiment of the present invention;  
Figure 117 illustrates the manner in which a %client% %requests% information from server objects via a network;  
Figure 118 illustrates the method of the present invention in which a %client% %requests% attributes from a server object via a network;  
Figure 119 illustrates the transmitting of all...the present invention registers requests; Figure 188 illustrates a flowchart for a method for sorting %requests% that are being unbatched from a batched message in accordance with an embodiment of the...be created, and client-side performance is improved. Unlike HTML, Java supports the notion of %client%-side validation, offloading appropriate processing onto the client for improved performance. Dynamic, real-time Web...or Netcentric. Most major enterprises have legacy systems that include both host based and distributed %client%/server applications. Netcentric applications may extend the mix of system technologies.

2. On the top...

...type of contenthent, one may need to tailor the information they present based on the %client%'s background and the terminology they are familiar with.

Technology Generation Selection

Introduction  
This section...

...When identifying the core technologies to be used in an architecture, a view of the %%%client%%% existing IT architecture 600, guiding principles 602 and business imperatives 604 should be taken...

...options available for each component and to select the most appropriate one based on the %%%client%%% requirements.

It is becoming more important to leverage existing systems and integrate them with...of factors which are completely non-technical in nature, such as financial factors, internal and %%%client%%% politics (say no more), and implementation/operational considerations.

When deciding whether to employ a Netcentric...

...Also Netcentric architectures tend to be more loosely coupled than (the still dominant two-tier) %%%client%%%/server systems.

50

The following sections identify the main characteristics associated with a Netcentric, Client...

...client has significant technology skills within its IT department.

This is especially important if the %%%client%%% plans on developing or operating the application themselves. A significant investment in training and changes...

...strong, making it difficult to deliver a successful project using new technology.

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E3. The %%%client%%% has multiple hardware/operating system configurations for their %%%client%%% machines.

In traditional %%%client%%%/server environments, distributing an application internally or externally for an enterprise requires that the application be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal %%%Client%%% or web-browser may eliminate many of these problems by providing a consistent and familiar ...

...gaining momentum. Now users can access the Internet from a television set. Network Computers, thin-%%%client%%% devices that download and run applications from a centrally maintained server are generating a lot...

...serve a potentially large new audience.

Expanding the user community of a legacy host or %%%client%%%/server system by including an audience which is external to the company can result in...

...each customer can repeatedly and easy customize a product according to own preferences.

B2. The %%%client%%% needs to reach a large or diverse internal audience

with this application.

Configuration management of traditional %%%client%%%/server applications, which tend to be physically distributed across both the %%%client%%% and server, is a major issue for many corporations. The software distribution of such applications...

...an update is made, a process must be initiated to distribute new code to all %%%client%%% machines. The browser-centric application style offers an alternative to this traditional problem of distributing functionality to both internal and external users.

IT guiding principles 704

G1. The %%%client%%% is an early adopter of new technology.

Implementation of a Netcentric architecture can help the %%%client%%% realize a number of business benefits. However, the introduction of new technology into an organization does have inherent risks and can result in a significant amount of change. The %%%client%%% should have a culture which can embrace these necessary changes.  
G2. Applications should be developed...

...internal and external users of the systems.

Client/server network generation

If, based upon a %%%client%%%'s requirements, most of the statements of Figure 8 are true, one should consider an application based upon the %%%Client%%% Server technology generation.

54

The following section details the importance of each of the statements...

...in Figure 8 and should assist one in identifying the appropriate answer for your specific %%%client%%% engagement.

Existing architecture and infrastructure 800

E1. Other %%%Client%%% Server applications been developed and placed in production and the %%%client%%% IT organization contains personnel familiar with %%%client%%% server architecture concepts.

As with any new technology, there is a learning curve related to...  
...to reside on the client hard drive.

Distribution to a user community outside of the %%%client%%%'s organization is even more difficult to implement and manage and will probably be limited...

...is critical to the application or sub-second response times are required for successful use.

%%Client%% server applications can provide response times necessary to support transaction intensive mission critical systems. Application logic and business data can be distributed between the %%%client%%% and server for optimal efficiency. Web-based interfaces still have an inherent overhead due to...

...architecture allows for the distribution of application logic and/or



data between the server and %%%client%%%. Replication of data and logic is usually necessary for applications that are run on portable computers.

IT guiding principles 804

G1. The %%%client%%% maintains their applications internally and the IT department has the necessary resources, organizations and processes...is no dynamic distribution of application logic.

The number of tiers in NCC and traditional %%%client%%%/server systems is different. NCC extends the traditional two-tier client/server architecture to a n-tier architecture.

The client in NCC systems is different from a client in traditional %%%client%%%/server systems.

The %%%client%%% in a NCC system is a standardized universal one; a NCC application can execute within a %%%client%%% that can run on multiple operating systems and hardware platforms. In traditional %%%client%%%/server systems, the %%%client%%% is custom-made for a specific operating system and hardware platform.

The way in which...

...processes. Server processes respond to messages from clients.

63

Business logic can reside on both %%%client%%% and server. Clients are typically PCs or Workstations with a graphical user interface running in

...

...are usually implemented on UNIX, NT or mainframe machines.

A key design decision for a %%%client%%%/server system is whether it should be two-tiered or multi-tiered and how business...

...is the prominent configuration in use today by companies which have attempted to migrate to %%%client%%%/server based computing.

Advantages

At a minimum, a two-tiered client/server architecture assumes that...

...Two-Tiered Architecture

64

The use of two-tier tools has resulted in a defacto "%%client%%-heavy" or "fat-client" two-tiered model where the presentation and application logic resides on...

...integration of distributed transaction processing middleware. This model of computing is often tenried the "enhanced" %%%client%%%/server

65

model. Most Netcentric architectures use a three- or four tiered approach with a web server and potentially a separate application server layer.

In the enhanced %%%client%%%/server model, all presentation and control logic resides on the %%%client%%%, all application logic resides on multiple back-end application servers, and all data management logic... tuned for the work they perform.

Database scaleable on throughput - In the enhanced three-tiered  
%%client%%/server model, %%client%% applications no longer connect  
directly to database servers. Instead, only application servers connect  
to the...the application logic complexity inherent to an interactive  
windowed interface.

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#### Implementation considerations

In traditional %%client%%/server applications, Forms are windows that  
contain widgets (text fields, combo-boxes, etc.) and business...replica  
of the transaction database, these resource intensive applications will  
not interfere with mission critical %%transaction%% processing.  
Replication can be either complete or partial. During complete  
replication all records are copied...communication protocols are  
supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine  
translates the %%client%% %%requests%% into specific server calls. It  
handles security, authentication, statistics gathering and some system  
management tasks...What type of conversation control is required?  
RPCs permit one side of the conversation (the %%client%%) to only make  
%%requests%%, while the other side (the server) may only make replies.  
Conversation control is passed from the client to the server since the  
%%client%%, for each %%request%%, causes one or more functions to  
execute on the server while it waits for its...

...improve performance by

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utilizing special techniques used to invoke the server every time a  
%%client%% %%request%% arrives.

Performance should be considered as a product differentiator.

What level of security is required...MIME - a secure version of the MIME  
e-mail standard.

#### Authorization 1554

When a user %%requests%% access to network resources, the Authorization  
service determines if the user has the appropriate pen...

...Network Operating Systems - Authorization services are bundled with all  
network operating systems in order to %%control%% user access to  
network resources.

163

Firewall Services protect sensitive resources and information attached to  
...proxy manages a database of allowed user actions, which it checks  
prior to performing the %%request%%.

Servers, Applications, and Databases - Authorization can occur locally on  
a server to limit access to...back).

A transaction produces consistent results; the effects of a transaction  
preserve invariant properties.

A %%transaction%% is isolated; its intermediate states are not visible  
to other transactions.

Transactions appear to...  
...even if they are performed concurrently.

A transaction is durable; the effects of a completed transaction are persistent; they are never lost (except in a catastrophic failure).

A transaction can be...

...in one of two ways: the transaction is either committed or rolled back. When a transaction is committed, all changes made by the associated requests are made permanent. When a transaction...has this quality is a candidate for a TP monitor.

Is the system not a transaction processing system?  
Although TP monitors provide global two-phase commit "transaction processing" functionality, systems that do not need this feature can also benefit by using TP...

...TP monitors can provide this functionality.

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e.g. A system has several servers accepting requests from clients dispersed across North America. There are two groups of servers. One group of servers handles requests from all clients located in the USA while the other group serves requests from Canada. When a client sends a request to the system, a field in the request message, defining the location of the client...

...at the local office is completed at the home office.

Is The System Multi-tiered?

Transaction Services are typically used in three-tier and multi-tier architectures. Particularly in Netcentric environments...TPS) Scaleable (handle many clients or a few without code rewrite) Supports Transactions, including XA transactions Has its own transaction resource manager Guaranteed message delivery using a stable storage queue (/Q) Future service delivery using...

...s messaging

Supports conversational messaging between a client and a specific server Peer-to-peer, client-to-client messaging is supported Unsolicited messaging is supported for client processes Asynchronous service calls can be...are made completely (committed) or not at all (roll-back). Consistency - the effects of a transaction preserve invariant properties.

Isolation - intermediate data values are not visible to other transactions.

Durability - the...

...not be entered in either place. A restart mechanism may then retry to complete the transaction.

Possible Product Options

Tuxedo; Encina; TOP END; CICS/6000; openUTM; TransIT Open/OLTP

Transaction Partitioning 2608

Transaction Partitioning Services provide support for mapping a single logical transaction in an...because there are more types of users (e.g., employees, customers) and additional types of transactions (e.g., e-commerce, help-desks). In traditional client/server environments most users are employees...

...an understandable explanation of what has happened and coordinating with other services to ensure that transactions and data are restored to a consistent state.

o

Logging Services support the logging of...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.

Handling of client requests for HTML pages. A Web browser initiates an HTTP request to the Web server either...Oracle WebServer A multi-threaded HTTP server that provides integrated features for translating and dispatching client HTTP requests directly to the Oracle7 Server using PL/SQL.

Push Pull Services (2840)

Push/Pull Services...

...billing, etc. and can also include report generation. This is an often overlooked area in client/server architectures.

Traditional client/server solutions and Netcentric solutions often require batch processing, but .20 unlike the mainframe, the typical ...The report initiation function is the interface for reporting applications into the report architecture. The client initiates a report request to the report architecture by sending a message to the report initiation function. The responsibility...

...a workstation platform technology architecture.

This custom report process is responsible for processing all messages requesting generation, manipulation, or distribution of reports. The following services are provided in an environment including...report status table, containing information about each report that has been requested for generation, including.

Requester ID

Report name

Date/time requested

Status (requested, in process, complete, or error)

Report-specific parameters.

The requester ID, report name, and date/time are used to uniquely identify the report. These values...

...is also provided to print the report after the generation if specified in the original request.

Processed report records are removed from the table only after the out

reports have been...

...in the original API request, and updates the status in the report status table.

A %request% to print a report proceeds as follows.

The report status is retrieved from the report...

...been previously requested for generation by the calling process.  
Returned is a list containing the %requested% data as well as the number of reports found.

Control Reports. The Control Reports function...

...queue. It creates a new entry in the report status table with a status of "%requested%" and initiates the report writer process for immediate generation or sends a message to the...  
...a generated report output file to a specified or default printer. The report name and %requesting% process ID is passed to identify the report.

#### EVALUATION CRITERIA

There are two primary approaches...If all the business logic executes on the server, then the application on the %client% will make %requests% to the server whenever it needs to execute a business function. This could increase network...occur. If all the business logic executes on the server, then the application on the %client% will make %requests% to the server whenever it needs to execute a business function. This could increase network...it easy to accommodate the reconfigure components to satisfy holiday crunch by running multiple various %transaction% volumes. copies of the Order component across multiple servers.

Components will help an IT organization...

9/3,K/11 (Item 9 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00784132

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A LEGACY WRAPPER IN A  
COMMUNICATION SERVICES PATTERNS ENVIRONMENT  
SYSTEME, PROCEDE ET DISPOSITIF POUR MODULE D'HABILLAGE EXISTANT DANS UN  
ENVIRONNEMENT DE SCHEMAS DE SERVICES DE COMMUNICATION

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Roadast, Palo Alto, CA 94304, US,

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Detailed Description

Detailed Description

... client" and Itserver" are used to refer to a computer's general role as a ###requester### of data (the ###client###) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the ###client### and cannot ###request### the ###client### to perform any action.

The communication model under the conventional Web envirom-nent provides a...

...to a client via a component integration architecture  
ided f  
are provi or servicing the ###client###. A legacy system is  
interconnected to the ###client### via the integration architecture using  
a legacy wrapper. The legacy system and the client are...  
...hybrid legacy wrapper component. Also, the interfacing may further  
include: sending a message from the ###client### to the legacy wrapper  
component via the component integration architecture; sending the message  
via the chart that can be utilized to determine whether to use  
###Client### Server technology; Figure 9 is a chart that can be utilized  
to determine whether to...with  
an embodiment of the present invention;  
Figure 117 illustrates the manner in which a ###client### ###requests###  
infon-nation from server objects via a  
network;  
Figure 118 illustrates the method of the present invention in which a  
###client### ###requests### attributes  
from a server object ...of the present invention;  
Figure 186 illustrates the manner in which the present invention sends  
###requests### independently; Figure 187 illustrates a manner in which  
the present invention registers ###requests###; Figure 188 illustrates a  
flowchart for a method for sorting requests that are being unbatched...be  
created, and client-side performance is improved. Unlike HTML, Java

supports the notion of client-side validation, offloading appropriate processing onto the client for improved performance. Dynamic, real-time Web pages can be created. Using the above-mentioned... core services may be implemented using one or several of the Technology Generations; currently Host, Client/Server or Netcentric. Most major enterprises have legacy systems that include both host based and...

...business needs.

Provide guidance to define what architecture best meets you're a user's client's business needs.

Provide standard architecture frameworks and best practices to build these architectures.

During...

...of contentclient, one may need to tailor the information they present based on the client's background and the terminology they are familiar with.

#### Technology Generation Selection

##### Introduction

This section...most applications should ideally be based on a Netcentric Architecture, rather than on a traditional client/server or a host-based architecture.

However choosing a generation is not just a technical...

...Web Browser at a later stage.

A Netcentric architecture will usually still support development of client/server applications. The opposite is not often true since traditional client/server systems usually keep...

...strong, making it difficult to deliver a successful project using new technology.

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E3. The client has multiple hardware/operating system configurations for their client machines.

In traditional client/server environments...

...be ported, recompiled and tested for all specific workstation operating systems. Use of a Universal Client or web-browser may eliminate many of these problems by providing a consistent and familiar...

...serve a potentially large new audience.

Expanding the user community of a legacy host or client/server system by including an audience which is external to the company can result in...

...ensure existing legacy systems and infrastructure can absorb this increase.

Business imperatives 702

B1. The client needs to reach a new external audience with this

application.

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This is probably...

...each customer can repeatedly and easy customize a product according to own preferences.

B2. The %%%client%%% needs to reach a large or diverse internal audience with this application.

Configuration management of traditional %%%client%%%/server applications, which tend to be physically distributed across both the client and server, is...is an early adopter of new technology.

Implementation of a Netcentric architecture can help the %%%client%%% realize a number of business benefits. However, the introduction of new technology into an organization does have inherent risks and can result in a significant amount of change. The %%%client%%% should have a culture which can embrace these necessary changes.  
G2. Applications should be developed...

...in Figure 8 and should assist one in identifying the appropriate answer for your specific %%%client%%% engagement.

Existing architecture and infrastructure 800

E1. Other %%%Client%%% Server applications been developed and placed in production and the client IT organization contains personnel...

...architecture concepts.

As with any new technology, there is a learning curve related to attaining %%%client%%% server development skills. The development process is often much more efficient when familiar tools and...

...are used. The. introduction of new technology can also create instability in the operations environment. %%%Client%%%/server systems still represent a new technology to many IT departments.

Business imperatives 802

B1...

...to reside on the client hard drive.

Distribution to a user community outside of the %%%client%%% 's organization is even more difficult to implement and manage and will probably be limited...

...transaction intensive mission critical systems. Application logic and business data can be distributed between the %%%client%%% and server for optimal efficiency. Web-based interfaces still have an inherent overhead due to...

...architecture allows for the distribution of application logic and/or data between the server and %%%client%%%. Replication of data and logic is usually necessary for applications that are run on portable...

...internally and the IT department has the necessary resources,



organizations and processes to maintain a `Client` Server application.

Introduction of a `Client` Server application to a company's production environment can require a great deal of change...in NCC and traditional client/server systems is different. NCC extends the traditional two-tier `client`/server architecture to a n-tier architecture.

The `client` in NCC systems is different from a client in traditional client/server systems.

The client...

...a NCC system is a standardized universal one; a NCC application can execute within a `client` that can run on multiple operating systems and hardware platforms. In traditional `client`/server systems, the `client` is custom-made for a specific operating system and hardware platform.

The way in which...

...processes. Server processes respond to messages from clients.

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Business logic can reside on both `client` and server. Clients are typically PCs or Workstations with a graphical user interface running in

...

...attempted to migrate to client/server based computing.

Advantages

At a minimum, a two-tiered `client`/server architecture assumes that an application's presentation logic resides on the `client` and its data management logic resides on the server. This style of computing became attractive...

...Two-Tiered Architecture

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The use of two-tier tools has resulted in a defacto "`client-heavy`" or "`fat-client`" two-tiered model where the presentation and application logic resides on the `client` and data management resides on the server. In fact, the use of these tools "out..."

...approach with a web server and potentially a separate application server layer.

In the enhanced `client`/server model, all presentation and control logic resides on the `client`, all application logic resides on multiple back-end application servers, and all data management logic resides on multiple back-end database servers.

Advantages

In contrast to mainframe and two-tiered `client`/server computing models, the principle advantage with a three-tiered enhanced `client`/server architecture is that it provides the benefits of a GUI application, but also provides...tuned for the work they perform.

Database scaleable on throughput - In the enhanced three-tiered

client/server model, client applications no longer connect directly to database servers. Instead, only application servers connect to the...communication protocols are supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the client requests into specific server calls. It handles security, authentication, statistics gathering and some system management tasks... What type of conversation control is required? RPCs permit one side of the conversation (the client) to only make requests, while the other side (the server) may only make replies. Conversation control is passed from the client to the server since the client, for each request, causes one or more functions to execute on the server while it waits for its...

...the platforms and operating systems that are important to your specific environment.

What is the client's vendor direction?

When evaluating a middleware product, its important to consider the clients relationships...

...improve performance by

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utilizing special techniques used to invoke the server every time a client request arrives.

Performance should be considered as a product differentiator.

What level of security is re...form so as to not disrupt the legacy systems.

Communications Security 1508

Communications Security services control access to network-attached resources. Combining network Security services with security services in other parts...

...MIME - a secure version of the MIME e-mail standard.

Authorization 1554

When a user requests access to network resources, the Authorization service determines if the user has the appropriate permissions... network.) The application proxy acts at the application level, rather than the network level. The proxy acts as a go-between for the end-user by completing the user-requested tasks...a completed transaction are persistent; they are never lost (except in a catastrophic failure).

A transaction can be terminated in one of two ways: the transaction is either committed or rolled back. When a transaction is committed, all changes made by the associated requests are made

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permanent. When a transaction is rolled back, all changes made by the... ability to route requests to a particular server based upon the data passed within the request. TP monitors can provide this functionality.

e.g. A system has several servers accepting requests...

...clients located in the USA while the other group serves requests from Canada. When a client sends a request to the system, a field

in the `%%request%%` message, defining the location of the client, is passed to the system. The TP monitor is then able to route the `%%request%%` to the correct group of servers (USA or Canada) based upon information in the request message.

#### Is Reliable Queueing Necessary?

TP monitors provide the ability to enqueue and dequeue `%%requests%%` to and from a reliable (stable storage) queue. Both the application and the administrator can control the order of the messages (service `%%requests%%`) in the queue. Messages can be ordered LIFO, FIFO, time based, priority, or by some...

...at the local office is completed at the home office.

#### Is The System Multi-tiered?

`%%Transaction%%` Services are typically used in three-tier and multi-tier architectures. Particularly in Netcentric environments...

...back-end services and/or data that its application relies on.

#### Product considerations

Is the `%%client%%` interested in stable or emerging technologies? TUXEDO has been ...or more resource managers either on a single machine or multiple machines within the network. `%%Transaction%%` Management Services ensure that all resources for a transaction are updated, or in the case...

...intermediate data values are not visible to other transactions.

Durability - the effect of a completed `%%transaction%%` are persistent.

Two-Phase Commit is a feature found in distributed database management systems and online `%%transaction%%` processing (OLTP) monitors to ensure information integrity across distributed databases. With this feature, a transaction...

#### ...OLTP

Transaction Partitioning 2608

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Transaction Partitioning Services provide support for mapping a single logical `%%transaction%%` in an application into the required multiple physical transactions. For example, in a package or legacy rich environment, the single logical `%%transaction%%` of changing a customer address may require the partitioning and coordination of several physical transactions...

...the application with a simple single transaction view.

#### Implementation considerations

Must the system support logical `%%transactions%%` that occur across heterogenous

application servers and databases?

EXAMPLE.

In a given application, a single...

...two physical transactions occurring, this entire business process is represented as a single logical transaction. `%%Transaction%%`

Partitioning services allow the application to ensure that the individual transactions occur across the different UNIX and MVS systems and that the single logical `%%transaction%%` is completed and successful when the individual physical transactions are completed and successful.

ENVIRONMENT 1016...the following.

Managing documents in most formats such as HTML, Microsoft Word, etc.

Handling of `%%client%%` `%%requests%%` for HTML pages. A Web browser initiates an HTTP request to the Web server either...Oracle WebServer A multi-threaded HTTP server that provides integrated features for translating and dispatching `%%client%%` HTTP `%%requests%%` directly to the Oracle7 Server using PL/SQL.

Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for reporting applications into the report architecture. The `%%client%%` initiates a report `%%request%%` to the report architecture by sending a message to the report initiation function. The responsibility...

...required for the report. This function would utilize the Information Access Services component of the `%%client%%/%%server%%` architecture.

Format the information. This function is responsible for formatting the collected information into the...internal database table, a report status table, containing information about each report that has been `%%requested%%` for generation, including.

Requester ID

Report name

Date/time `%%requested%%`

Status (`%%requested%%`, in process, complete, or error)

Report-specific parameters.

The requester ID, report name, and date...

...is also provided to print the report after the generation if specified in the original `%%request%%`.

Processed report records are removed from the table only after the output reports have been...

...reads the messages from a queue and invokes the appropriate

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modules to handle each `%%request%%`. Subsequent process flows differ based upon the requested service. In the case of a report...

...been previously requested for generation by the calling process. Returned is a list containing the `%%requested%%` data as well as the number of reports found.

Control Reports. The Control Reports function...

...a generated report output file to a specified or default printer. The report name and `%%requesting%%` process ID is passed to identify the report.

#### EVALUATION CRITERIA

There are two primary approaches...have the authority to do the same work, such as claims adjusters; just assign the `%%request%%` to the next available person. In addition, a process or agent can assume a role... occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...

...occur. If all the business logic executes on the server, then the application on the `%%client%%` will make `%%requests%%` to the server whenever it needs to execute a business function. This could increase network...plugging" them components within new into the enterprise infrastructure.

applications.

Interoperable Making it possible to `%%request%%` Making it possible to integrate two services across platforms. applications built on different platforms.

Scalable...

9/3,K/12 (Item 10 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00784119

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A REFRESHABLE PROXY POOL IN A COMMUNICATION ENVIRONMENT  
SYSTEME, PROCEDE ET ARTICLE POUR GROUPE D'ELEMENTS MANDATAIRES (PROXY) RAFRAICHISSABLES DANS UN ENVIRONNEMENT A CONFIGURATIONS DE SERVICES DE COMMUNICATION

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Fulltext Availability:

Detailed Description

Claims

English Abstract

...for identifying the location of one of the global addressable interfaces in response to a ###request### received from the ###client###.

Detailed Description

... client" and llserver" are used to refer to a computer's general role as a ###requester### of data (the ###client###) or provider of data (the server). Under the Web envirom-nent, Web browsers reside in...

...above interaction, the server serves a passive role, i.e., it accepts commands from the ###client### and cannot ###request### the ###client### to perform any action.

The communication model under the conventional Web envirom-nent provides a...

...the location of one of the global addressable interfaces in I O response to a ###request### received from the ###client###.

In an aspect of the present invention, the proxy pool may employ load balancing. In...with an embodiment of the present invention; Figure 117 illustrates the manner in which a ###client### ###requests### information from server objects via a network;

Figure 118 illustrates the method of the present invention in which a ###client### ###requests### attributes from a server object via a network;

Figure 119 illustrates the transmitting of all...communication protocols are supported including NetBIOS, SNA, DecNET, TCP/IP. The main engine translates the ###client###

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###requests### into specific server calls. It handles security, authentication, statistics gathering and some system management tasks... type of conversation control is required?

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RPCs permit one side of the conversation (the ###client###) to only make ###requests###, while the other ...only make replies. Conversation control is passed from the client to the server since the ###client###, for each ###request###, causes one or more functions to execute on the server while it waits for its...

...may improve performance by utilizing special techniques used to invoke the server every time a ###client### ###request### arrives.

Performance should be considered as a product differentiator.  
What level of security is required...

#### Claim

... The user name and password are transmitted as a scrambled message as part of each `%%request%%` because there is no persistent connection open between the Web client and the Web server...1014

A transaction is a unit of work that has the following (ACID) characteristics: A `%%transaction%%` is atomic; if interrupted by failure, all effects are undone (rolled back). A transaction produces...

...committed or rolled back. When a transaction is committed, all changes made by the associated `%%requests%%` are made permanent. When a transaction is rolled back, all changes made by the associated...ability to route requests to a particular server based upon the data passed within the `%%request%%`. TP monitors can provide this functionality.  
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e.g. A system has several servers accepting...

...clients located in the USA while the other group serves requests from Canada. When a `%%client%%` sends a `%%request%%` to the system, a field in the request message, defining the location of the client, is passed to the system. The TP monitor is then able to route the `%%request%%` to the correct group of servers (USA or Canada) based upon information in the request message.

Is Reliable Queueing Necessary?

TP monitors provide the ability to enqueue and dequeue `%%requests%%` to and from a reliable (stable storage) queue. Both the application and the administrator can...

...at the local office is completed at the home office.

Is The System Multi-tiered?

`%%Transaction%%` Services are typically used in three-tier and multi-tier architectures. Particularly in Netcentric environments...

...providing access to

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multiple back-end services, across enterprises, as part of a single `%%transaction%%` or user activity. This can be especially challenging if the user does not own some...

...back-end services and/or data that its application relies on.

Product considerations

Is the `%%client%%` interested in stable or emerging technologies?

TUXEDO has been in the TP marketplace for seven...or more resource managers either on a single machine or multiple machines within the network. `%%Transaction%%` Management Services ensure that all resources for a transaction are updated, or in the case...data values are not visible to other transactions.

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Durability - the effect of a completed `%%transaction%%` are persistent. Two-Phase Commit is a feature found in distributed database management systems and online `%%transaction%%` processing (OLTP) monitors to ensure information integrity across distributed databases. With this feature, a transaction...

...Open/OLTP

Transaction Partitioning 2608

Transaction Partitioning Services provide support for mapping a single logical `$$$transaction$$$` in an application into the required multiple physical transactions. For example, in a package or legacy rich environment, the single logical `$$$transaction$$$` of changing a customer address may require the partitioning and coordination of several physical transactions...

...multiple application systems or databases. Transaction Partitioning Services provide the application with a simple single `$$$transaction$$$` view.

Implementation considerations

Must the system support logical transactions that occur across heterogeneous application servers...

...are two physical transactions occurring, this entire business process is represented as a single logical `$$$transaction$$$`. `$$$Transaction$$$` Partitioning services allow the application to ensure that the individual `$$$transactions$$$` occur across the different UNIX and MVS systems and that the single logical `$$$transaction$$$` is completed and successful when the individual physical transactions are completed and successful. In ENVIRONMENT...local state information is maintained on the page. NetDynamics provides manipulatable state objects for both `$$$server$$$` and page state information.

Codes Table Service 2726

Codes Table Services enable applications to utilize...the following:

Managing documents in most formats such as HTML, Microsoft Word, etc. Handling of `$$$client$$$` `$$$requests$$$` for HTML pages. A Web browser initiates an HTTP request to the Web server either...

...Oracle WebServer

A multi-threaded HTTP server that provides integrated features for translating and dispatching `$$$client$$$` HTTP `$$$requests$$$` directly to the Oracle7 Server using PL/SQL.

Push Pull Services (2840)

Push/Pull Services...The report initiation function is the interface for reporting applications into the report architecture. The `$$$client$$$` initiates a report `$$$request$$$` to the report architecture by sending a message to the report initiation function. The responsibility...name Date/time requested

Status (requested, in process, complete, or error)

Report-specific parameters. The `$$$requester$$$` ID, report name, and date/time are used to uniquely identify the report. These values...

...process flows differ based upon the requested service. In the case of a report generation `$$$request$$$`, the process flow proceeds as follows: A record is added to the report status table...

...application report writer module generates the report, prints it if specified in the original API `$$$request$$$`, and updates the status in the report status table.

A request to print a report...removed from the report status table. The report file is removed from disk. Status information `$$$requests$$$` are



performed directly from the A-PI using Information Access Services APIs.  
No interaction with...

...The functions designed to support this process are:

Generate Report  
Get Report Status  
Control Reports  
%%%Request%%% Report (b2402)  
Delete Report (b2406)  
Print Report (b2404)

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Generate Report. This module is called...

...service, a printer name is passed. For status update, the new status code is passed. %%%Request%%% Report. The Request Report function is responsible for processing report request messages written to the...

...a generated report output file to a specified or default printer. The report name and %%%requesting%%% process ID is passed to identify the report.

#### EVALUATION CRITERIA

There are two primary approaches...entries to be modified.

Is there a need for reporting and management facilities?

Typical workflow %%%application%%% requirements are better general management %%%control%%% and better management of change. Proactive system action, audit trails and system administration features like...the steps and rules that govern how a sales order is fulfilled). As such, the %%%Application%%% Logic includes the %%%control%%% structure that specifies the flow for processing for business events and user requests. The isolation...occur. If all the business logic executes on the server, then the application on the %%%client%%% will make %%%requests%%% to the server whenever it needs to execute a business function. This could increase network...

...occur. If all the business logic executes on the server, then the application on the %%%client%%% will make %%%requests%%% to the server whenever it needs to execute a business function. This could increase network...

...having the business logic execute on the client, may require longer load times when the %%%application%%% is initially launched. However, once the %%%application%%% is loaded, most processing is done on the client until synchronization with the server is...281

traditional application architectures to provide a greater degree of default behavior and flow of %%%control%%% in a skeleton of the %%%application%%%. For example, traditional program shells rely heavily on cut-and-paste techniques to achieve reuse...generally demand even more and deeper skills, unless the team has exceptionally talented individuals, extensive %%%client%%%/server experience, and ample time to scale the learning curve. It is important to note...common to those who have successfully scaled the component management learning curve include:

Experience with %%%client%%%/server development and a technical orientation

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Willingness and flexibility to learn new terminology, tools...that defining the macro process along the lines of a waterfall structure is

most effective. **Client** and firm project management are typically uncomfortable with defining milestones and estimating work with iterations...

...The need to start architecture implementation early is well-understood for traditional or component-based **client**/server development. What is different with component-based development, however, is the need for the...specifications.

Architecture development must start early

A tension exists between use cases and frameworks

As with **client**/server, architecture work must start early. As noted above, this is particularly challenging because of...

...application. Frameworks developer - responsible for the application and technology architecture that provide common services and **control** logic for the **application**.

1 5

These roles do not necessarily correspond directly to organization assignments. Whether these roles...in a pilot case. Coordination is often necessary with a pilot developer who is a **client** of the reusable piece, to ensure that it works in an appropriate use case. Typically... more global implications.

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For example, changes may be rolled out in the following intervals:

**Application** Interface or **Control** - nightly

Narrow Impact **Object** Model - nightly

Wide Impact Object Model - coordinated on-demand, no more than 1-3 times

...Microsoft Word (which can transform documents into HTML) make it possible to leverage the web **server**'s index **server** to locate artifacts from various locations. This practice is being more widely adopted, as shown...during coding and maintenance. Moreover, they also complicate business logic with technical details. Therefore, the **application** architecture should **control** access to a business **object**'s data. This will separate out reusable, technical, architecture details. Business objects should use an...of looking-up the interfaces using the naming service. In a client-server environment, a **client** makes **requests** of services on a Server. In such an environment, how might a Server expose its scenario. A **client** **requests** customer data from a Server. The Server finds the data in a database and forwards...

9/3,K/13 (Item 11 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00777046 \*\*Image available\*\*

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR NETWORK PERFORMANCE MODELING

SYSTEME, PROCEDE ET ARTICLE DE PRODUCTION POUR LA MODELISATION DE PERFORMANCES BASEE SUR LE COMMERCE ELECTRONIQUE

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AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
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Patent: ...%%20010208%%

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... client" and lserver" are used to refer to a computer's general role  
as a %%%requester%% of data (the %%%client%%) or provider of data (the  
server). Under the Web environment, Web browsers reside in clients...  
...the server serves a passive role, i.e., it I 0 accepts commands from the  
%%client%% and cannot %%%request%% the %%%client%% to perform any  
action.

The communication model under the conventional Web environment provides a  
very...000.

Activities

NITS defines an activity as set of objects acting on behalf of a  
%%client%%'s %%%request%%. Every NITS object belongs to one activity.  
The activity ID is recorded in the context...

...is going to succeed. If the component never calls SetAbort, SetComplete,  
DisableCommit, or EnableCommit, the %%%transaction%% commits when the  
%%client%% releases its last reference to the NITS component.

If the component calls SetComplete, the transaction...

...soon as the method call returns to the client.

If the component calls DisableCommit, the %%%transaction%% aborts when  
the %%%client%% releases its last reference to the component. If the  
component calls EnableCommit, the %%%transaction%% commits when the  
%%client%% releases its last reference to the component.

Implications on Mplication design.

When designing the transaction...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, NITS may automatically commit the `%%transaction%%` when the `%%client%%` releases its object references.

#### Manual Transaction Control

Transactions can also be manually controlled from a base `%%client%%` by using the `%%transaction%%` context to start and commit/abort a transaction. This is particularly useful in the case...

...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the `%%client%%` `%%requests%%` an instance of the CustomerInterface of the Customer component.

Set objlCustomer = CreateObject("CustomerComponent.CustomerInterface").

COM...

...creates the ContextObject 606 and returns a reference to the client. See Figure 6.

The `%%client%%` application `%%requests%%` an operation on the CustomerInterface.

0 NITS invokes the operation and commits the transaction (if...

...the MTS-supplied context wrapper (the client code does not set objlCustomer = null). When the `%%client%%` `%%requests%%` a new operation, the Context wrapper creates a new instance of the Customer component and...is created, MTS automatically creates a new transaction for the object, regardless of whether its `%%client%%` has a `%%transaction%%`.

Supports transactions. This value indicates that the component's objects can execute within the scope of their `%%client%%`'s `%%transactions%%`. When a new object is created, its object context inherits the transaction from the context...

...object is created, its object context is created without a transaction, regardless of whether the `%%client%%` has a `%%transaction%%`.

#### Tool Recommendation

Many configuration management tools are available on the market today, some of which...page is created dynamically at the (Non UI Framework) web server and written to the `%%requesting%%` `%%client%%`.

These pages are useful when dynamic data is required within the web page itself.

Microsoft...

...is also created dynamically at

(Using UI Framework) the web server and written to the %%%requesting%%  
%%client%%,  
however, they make use of the ReTA User Interface  
Framework.

Tool recommendation

Microsoft Visual Studio...services support the following: managing  
portion of the present descriptions in multiple formats, handling of  
%%client%% %%%requests%% for HTML pages, processing server-side  
scripts, and caching web pages to improve performance.

ReTA...

Claim

... ensure your oracle Tools project within VSS) to your C:

Program Files

1

4ts folder. %%%client%% connection Copy over the existing exe (version  
7.3 compatible). is transactional. Run the TestOraclexaConfig...request:  
High, Medium, Low

356

T Area\* Project or Area assigned to complete the change %%%request%%:

Account Management

%%Client%% Services

Delivery Systems

Insurance/Corporate Systems

Network Services

Production Services

Technical Services

Category\* The classification...Ver. 5.0

Raptor Firewall 5.0 for NT

CyberGuard Firewall Version 3.0

Microsoft %%%Proxy%% %%%Server%% Ver. 2.0

Trusted Information Gauntlet Ver 3.2

The products selected above are recognized...

...121

consi I

illustrates the selected products: Check Point Firewall for NT 12100 and  
Microsoft %%%Proxy%% %%%Server%% Version 2.0 12102.

1 5

Check Point's Firewall for NT: Maintaining a high...been considered from  
a number of different perspectives.

1 5 \* Support network address translation

Traffic %%%control%% by source/destination address, %%%application%%,  
etc.

Alert generation for breaches

e Encryption support

Authentication support

a Centralized administration of multiple...on the public network (and, if  
security policy pen-nits, vice versa) by forcing both %%%client%% and  
%%server%% to address their packets only to the proxy running on the  
firewall bastion host. These...

...those governing packet filters and are based on the IP addresses and  
port numbers of %%%client%% and %%%server%%. Unlike a packet filter,  
circuit proxy funnels all traffic through a single IP port (usually 1080)  
instead of using a different port number for each application. If a

%%%client%%% on the public network opens a session with a %%%server%%% on the internal network, the %%%client%%% has no way to learn the actual IP address of the %%%server%%% at the other end of the connection, since the circuit proxy intercepts all the 0...

...more, circuit proxies are not transparent and may require modifications to the usage of the %%%client%%% and %%%server%%%. For

9/3,K/14 (Item 12 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00777021

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR AN E-COMMERCE BASED USER FRAMEWORK DESIGN FOR MAINTAINING USER PREFERENCES, ROLES AND DETAILS  
SYSTEME, PROCEDE ET ARTICLE MANUFACTURE UTILISES EN COMMERCE ELECTRONIQUE POUR LA CONCEPTION DE STRUCTURES D'UTILISATEURS DESTINEES A PRESERVER LES PREFERENCES, ROLES ET DETAILS DES UTILISATEURS

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Patent and Priority Information (Country, Number, Date):

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Priority Application: US 99364091 19990730

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AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

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(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

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Publication Language: English

Filing Language: English

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Patent and Priority Information (Country, Number, Date):

Patent: ...%%%20010208%%%

Fulltext Availability:

Detailed Description

Detailed Description

... client" and llserver" are used to refer to a computer's general role as a %%%requester%%% of data (the %%%client%%% or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the %%%client%%% and cannot %%%request%%% the %%%client%%%

to perform any action.

The communication model under the conventional Web environment provides a very...existing applications and data; and

29

Sun Microsystem's Java language solves many of the %%%client%%%side problems by.

Improving performance on the client side;  
Enabling the creation of dynamic, real...When working with MTS components, it is recommended to keep the context(state) on the %%%client%%% and have the server components be service driven. These components are instantiated to provide a...

...000.

#### Activities

MTS defines an activity as set of objects acting on behalf of a %%%client%%%s %%%request%%%. Every MTS object belongs to one activity. The activity ID is recorded in the context...

...Implication on Uplication design.

Activities define a single logical thread of execution. When a base %%%client%%% calls into an activity, all subsequent requests from other clients are blocked until control is...

...is going to succeed. If the component never calls SetAbort, SetComplete, DisableCommit, or EnableCommit, the %%%transaction%%% commits when the %%%client%%% releases its last reference to the MTS component.

If the component calls SetComplete, the transaction commits as soon as the method call returns to the %%%client%%%. When the component calls SetAbort the transaction aborts as soon as the method call returns to the %%%client%%%.

If the component calls DisableCommit, the %%%transaction%%% aborts when the %%%client%%% releases its last reference to the component. If the component calls EnableCommit, the %%%transaction%%% commits when the %%%client%%% releases its last reference to the component.

Implications on gpplication design.  
When designing the transaction...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, MTS may automatically commit the %%%transaction%%% when the %%%client%%% releases its object references.

#### Manual Transaction Control

Transactions can also be manually controlled from a base %%%client%%% by using the %%%transaction%%% context to start and commit/abort a transaction. This is particularly useful in the case...

...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the %%%client%%% %%%requests%%% an

instance of the CustomerInterface of the Customer component.

0 Set objlCustomer = CreateObject("CustomerComponent.CustomerInterface... package containing Customer component 604, creates the ContextObject 606 and returns a reference to the %%%client%%%. See Figure 6.

The %%%client%%% application %%%requests%%% an operation on the CustomerInterface.

9 MTS invokes the operation and commits the transaction (if...

...700 deactivates the component, freeing the thread, the memory and returns the result to the %%%client%%%. Figure 7 shows that the customer object 702 has been deactivated (the customer object is...

...the MTS-supplied context wrapper (the client code does not set objlCustomer = null). When the %%%client%%% %%%requests%%% a new operation, the Context wrapper creates a new instance of the Customer component and...

...run the risk of running in the wrong context. CreateObject can be used from the %%%client%%% to instantiate any MTS object.

CreateInstance.

It is the interface method of the context object...in the appropriate test environment.

Develop and execute a test plan to properly exercise new %%%application%%%

including new, modified, and unmodified functionality.

Reporting results of test.

Vendor For the purposes of...

...of the present description that describes the work that may be done for the change %%%request%%%. The Scope Definition portion of the present description is a simple portion of the present...is created, MTS automatically creates a new transaction for the object, regardless of whether its %%%client%%% has a %%%transaction%%%.

Supports transactions. This value indicates that the component's objects can execute within the scope of their %%%client%%%s %%%transactions%%%. When a new object is created, its object context inherits the transaction from the context...anywhere in the world, while sharing protected, centrally managed software.

Additional features include.

I-NET %%%client%%% is simple and easy to use. It supports developers in many locations, working

15. on...

...Source Control Administrator may be responsible for the mass checkout and build of the entire %%%application%%% or architecture. Test workstations 3300 may access a web the app server 3302, which is...Page This type of web page is created dynamically at the (Non UI Framework) web %%%server%%% and written to the %%%requesting%%% %%%client%%%.



These pages are useful when dynamic data is required within the web page itself.

Microsoft...

...is also created dynamically at  
(Using UI Framework) the web server and written to the `%%requesting%%`  
`%%client%%`,  
however, they make use of the ReTA User Interface Framework.  
Tool recommendation  
Microsoft Visual Studio...application integrity and causes maintenance overheads.

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Construction

Construction tools and processes are used to `%%program%%` or build the `%%application%%`: client and server source code, windows, reports, and database. ReTA based development should use a...

...existing application if it can create valid data.

Convert production data if the Data Conversion `%%Application%%` and the production data are reliable.

Tool Recommendation

If possible, leverage any existing data manipulations...services support the following: managing portion of the present descriptions in multiple formats, handling of `%%client%%` `%%requests%%` for HTML pages, processing server-side scripts, and caching web pages to improve performance.

ReTA...Logic includes the control structure that specifies the flow for processing business events and user `%%requests%%`. In a ReTA application, the Application Frameworks define a structured approach to the concepts of...Server & I per Any platform Example.

Source Code project supporting standard Microsoft Windows NT

`%%Server%%`

Repository file `%%server%%` service OR  
provider. Novell Netware

1 GB Disk Space

Architecture 1 per 300 MHz (Pentium Microsoft Windows NT `%%Server%%`  
v4.0

Database project 11) (SP4)

`%%Server%%` 128 MB RAM Microsoft SQL `%%Server%%` v7.0

8 GB Hard Drive And/or

CD-ROM Drive Oracle8 Enterprise Edition for...

...match as closely to that of the production system as possible.

237

i F11101

esting `%%Client%%` per 300 MHz (Pentium Microsoft Windows (NT or Windows  
ester 11) 95/98)

128 MB...

...and Error Reporting/Tracking Tools

(optional)

Architecture 1+ per (4) 400 MHz Microsoft Windows NT %%%Server%%% v4.0  
(SP4)

Database environ Pentium. 11 Microsoft SQL %%%Server%%% v7.0

%%Server%% -ment 2 GB RAM OR

8 GB Hard Drive Oracle8 Enterprise Edition for NT v8...

...Operational Utilities (optional)

15" Monitor

Web/Applicatio 1+ per (4) 400 MHz Microsoft Windows NT %%%Server%%% v4.0  
(SP4)

n %%%Server%% environ Pentium II Microsoft Internet Information  
%%Server%% v4.0

-ment 2 GB RAM Microsoft Transaction %%%Server%%% v2.0

8 GB Hard Drive Microsoft Site %%%Server%%% Commerce Edition

CD-ROM v3.0 (optional)

15" Monitor Oracle 8 4 %%%Client%%%

Operational Utilities (optional)

Production Environment Specifications

The following table provides basic requirements for the hardware...

...01

Dependent

Netscape Communicator v4.5

Architecture 1+ per (4) 400 MHz Microsoft Windows NT %%%Server%%% v4.0  
(SP4)

Database environ Pentium H Microsoft SQL %%%Server%%% v7.0

%%Server%% -ment 2GBRAM OR

8 GB Hard Drive Oracle8 Enterprise Edition for NT v8 4

CD...

...Operational Utilities (optional)

15" Monitor

Web/Applicatio 1+ per (4) 400 MHz Microsoft Windows NT %%%Server%%% v4.0  
(SP4)

n %%%Server%% environ Pentium II Microsoft Internet Infori-nation  
%%Server%% v4.0

-ment 2 GB RAM Microsoft Transaction %%%Server%%% v2.0

8 GB Hard Drive Microsoft Site %%%Server%%% Commerce Edition

CD-ROM v3.0 (optional)

15" Monitor Oracle 8 4 %%%Client%%%

Operational Utilities (optional)

Firewall 1+ 300 MHz (Pentium Microsoft Windows NT %%%Server%%% v4.0 (SP4)

11) Firewall Software

128 MB RAM Operational Utilities (optional)

2 GB Hard Drive

CD-ROM Drive

15" Monitor

Site %%%Server%%% Installation

Overview

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Site %%%Server%%% Installation

The following portion of the description describes the pre-installation  
suggestions and the installation steps required for setup and configuring  
Site %%%Server%%% 3.0 Commerce Edition.

#### Pre-Installation Suggestions

Do not install Site Server on a Backup...store information on the user's computer. When this option is selected, the ISAPI (Internet %%%Server%%% Application Program Interface) filter (which was installed by the mapping of the Membership %%%Server%%%) parses the headers of the %%%client%%% and looks for the two cookies. There are three possibilities. If the cookies exist then...

...5 DPA and Clear Text / Basic Authentication can be selected simultaneously. In this case, the %%%server%%% may first attempt to issue a DPA authentication challenge. If (and only if) the %%%client%%% cannot interpret the challenge, the %%%server%%% may offer the Clear Text/Basic Authentication request.

IDC and Membership Authentication  
The Integrated Direct...

9/3,K/15 (Item 13 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00777020

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR RESOURCE ADMINISTRATION IN  
AN E-COMMERCE TECHNICAL ARCHITECTURE  
SYSTEME, PROCEDE ET ARTICLE MANUFACTURE POUR L'ADMINISTRATION DE RESSOURCES  
DANS UNE ARCHITECTURE TECHNIQUE DE COMMERCE ELECTRONIQUE

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Patent Applicant/Inventor:

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(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

HICKMAN Paul L (agent), Oppenheimer Wolff & Donnelly, LLP, P.O. Box  
52037, Palo Alto, CA 94303-0746, US,

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

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Patent: ...%%20010208%%%

Fulltext Availability:  
Detailed Description

Detailed Description  
... the masses.

The architecture of the Web follows a conventional client-server model. The terms "%%client%%" and "server" are used to refer to a computer's general role as a %%requester%% of data (the %%client%%) or provider of data (the server). Under the Web environment, Web browsers reside in clients...

...above interaction, the server serves a passive role, i.e., it accepts commands from the %%client%% and cannot %%request%% the %%client%% to perform any action.

The communication model under the conventional Web environment provides a very...Main Window according to an embodiment of the present invention;

Figure 78 illustrates the Change %%Request%% Detail Screen according to an embodiment of the present invention;

Figure 79 illustrates a History...an embodiment of the present invention;

Figure 125 illustrates an Internetworking Gateway with a Specialized %%Proxy%%/Cache %%Server%% according to an embodiment of the present invention;

1 6

Figure 126 illustrates a high...the application on the first server. Additionally, generation of a 1 5 plurality of the %%proxy%% components by a user may be allowed. The following material provides a more detailed description...ReTA application developer can implement through MTS.

Compose work from multiple components in the same %%transaction%% As illustrated in Figure 3, in this scenario, the developer composes the work of a...1000.

#### Activities

MTS defines an activity as set of objects acting on behalf of a %%client%%'s %%request%%. Every MTS object belongs to one activity. The activity ID is recorded in the context...is going to succeed. If the component never calls SetAbort, SetComplete, DisableCommit, or EnableCommit, the %%transaction%% commits when the %%client%% releases its last reference to the MTS component.

If the component calls SetComplete, the transaction...

...the method call returns to the client.

1 5

If the component calls DisableCommit, the %%transaction%% aborts when the %%client%% releases its last reference to the component. If the component calls EnableCommit, the %%transaction%% commits when the %%client%% releases its last reference to the component.

Implications on application design.

When designing the transaction timeout...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, NITS may automatically commit the `%%transaction%%` when the `%%client%%` releases its object references.

#### Manual Transaction Control

Transactions can also be manually controlled from a base `%%client%%` by using the `%%transaction%%` context to start and commit/abort a transaction. This is particularly useful in the case...

...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the `%%client%%` `%%requests%%` an instance of the CustomerInterface of the Customer component.  
Set objICustomer = CreateObject("CustomerComponent.CustomerInterface").

COM...

...Running Object Table to determine whether an instance of the component is active on the `%%client%%`.

If not, COM searches the Registry for the information describing CustomerInterface and invokes the creation...

...creates the ContextObject 606 and returns a reference to the client. See Figure 6.

The `%%client%%` application `%%requests%%` an operation on the CustomerInterface.

46

NITS invokes the operation and commits the transaction (if...

...the MTS-supplied context wrapper (the client code does not set objICustomer = null). When the `%%client%%` `%%requests%%` a new operation, the Context wrapper creates a new instance of the Customer component and...Handler can return the error message as a string and enables the application to implement `%%client%%` specific formatting (HTML or other).

The process event method no longer calls the ASP redirect... (FJScriptAction for details).

Radio buttons are used in groups. Because of the complexity of the `%%client%%` side script required in conjunction with the radio button component, the application developer must call...requests by the users based on the criteria, and monitoring the implementation of the change `%%request%%`. The present invention may also optionally include the creation of a training schedule to fulfill...system test environment.

Participate in system test (or performance test).

Change Control  
Description

Change `%%requests%%` as a consequence of changing requirements and changes requested due to nonconformity (or defects), either...is created, MTS automatically creates a new transaction for the object, regardless of whether its `%%client%%` has a `%%transaction%%`.

Supports transactions. This value indicates that the component's objects can execute within the scope of their `%%client%%`'s `%%transactions%%`. When a new object is created, its object context inherits the transaction from the context...

...object is created, its object context is created without a transaction, regardless of whether the `%%client%%` has a `%%transaction%%`.

#### Tool Recommendation

Many configuration management tools are available on the market today, some of which...every element on the page. The server does not maintain a session connection with the `%%client%%` nor save any information between `%%client%%` exchanges (i.e., web page submits or requests). Each HTTP exchange is a completely independent...page is created dynamically at the (Non UI Framework) web server and written to the `%%requesting%%` `%%client%%`.

These pages are useful when dynamic data is required within the web page itself.

#### Microsoft...

...is also created dynamically at (Using UI Framework) the web server and written to the `%%requesting%%` `%%client%%`, however, they make use of the ReTA User Interface Framework.

#### Tool recommendation

Microsoft Visual Studio...NT Server 4.0 Oracle Enterprise Edition 8.04 (4004) MB (SP4) HP OmniBack 11 `%%Client%%`  
RETADEVI P-300 96 Windows NT Microsoft Transaction Server 2.0 (4006) MB Workstation 4...services support the following: managing portion of the present descriptions in multiple formats, handling of `%%client%%` `%%requests%%` for HTML pages, processing server-side scripts, and caching web pages to improve performance.

#### ReTA...

9/3,K/16 (Item 14 from file: 349)  
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00777017

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A HOST FRAMEWORK DESIGN IN AN E-COMMERCE ARCHITECTURE  
SYSTEME, PROCEDE ET ARTICLE DE PRODUCTION DESTINES A LA CONCEPTION D'UNE STRUCTURE D'ORDINATEUR CENTRAL DANS UNE ARCHITECTURE DE COMMERCE ELECTRONIQUE

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(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

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2029 Century Park East, Los Angeles, CA 90067-3024, US,

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AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
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Patent: ...%%20010208%%

Fulltext Availability:

Detailed Description

Detailed Description

... client" and lserver" are used to refer to a computer's general role  
as a %%%requester%% of data (the %%%client%%) or provider of data (the  
server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts  
commands from the %%%client%% and cannot %%%request%% the %%%client%%  
to perform any action.

The communication model under the conventional Web environment provides a  
very...in a larger software project in the future.

If 90% of a new OOP software %%%program%% consists of proven, existing  
components made from preexisting reusable objects, then only the  
remaining IO...1000.

Activities

NITS defines an activity as set of objects acting on behalf of a  
%%client%%'s %%%request%%. Every MTS object belongs to one activity.  
The activity ED is recorded in the context...

...the object. The objects in an activity consist of the object created by  
a base %%%client%% and any subsequent object created by it and all of  
its descendants. Objects in an...

...is going to succeed. If the component never calls SetAbort, SetComplete,  
DisableCommit, or EnableCommit, the %%%transaction%% commits when the  
%%client%% releases its last reference to the NITS component.

If the component calls SetComplete, the transaction...

...soon as the method call returns to the client.

If the component calls DisableCommit, the `transaction` aborts when the `client` releases its last reference to the component. If the component calls EnableCommit, the `transaction` commits when the `client` releases its last reference to the component.

Implications on application design.

When designing the transaction...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, MTS may automatically commit the `transaction` when the `client` releases its object references.

Manual Transaction Control

Transactions can also be manually controlled from a base `client` by using the `transaction` context to start and commit/abort a transaction. This is particularly useful in the case...

...transaction.

In order to achieve that, MTS uses the Transaction Context created by the base `client`.

Just-In-Time Activation

For every business object created, MTS intercepts the call and creates...

...the business object is destroyed releasing all resources used by it. The next time the `client` issues a method call, MTS creates a new instance of the business object and delegates the call to it (this is assuming that the `client` did not release its original reference to the MTS-supplied context wrapper). In the NITS...

...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the `client requests` an instance of the CustomerInterface of the ...Running Object Table to determine whether an instance of the component is active on the `client`.

46

invokes the creation of the interface.

MTS 600 intercepts the Customer creation request 602...

...creates the ContextObject 606 and returns a reference to the client. See Figure 6.

The `client` application `requests` an operation on the CustomerInterface.

0 MTS invokes the operation and commits the transaction (if...



...700 deactivates the component, freeing the thread, the memory and returns the result to the `%%client%%`. Figure 7 shows that the customer object 702 has been deactivated (the customer object is...

...activation, the clients do not release the reference to the MTS-supplied context wrapper (the `%%client%%` code does not set `objlCustomer = null`). When the `%%client%%` `%%requests%%` a new operation, the Context wrapper creates a new instance of the Customer component and...

...Use disconnected Recordsets. This may ensure high performance result when marshaling data across a network. `%%Client%%` applications have to reference an `ADOR.Recordset`, which is a lighter version of the `ADODB...` is created, MTS automatically creates a new transaction for the object, regardless of whether its `%%client%%` has a `%%transaction%%`.

Supports transactions. This value indicates that the component's objects can execute within the scope of their `%%client%%`'s `%%transactions%%`. When a new object is created, its object context inherits the transaction from the context...

...object is created, its object context is created without a transaction, regardless of whether the `%%client%%` has a `%%transaction%%`.

#### Tool Recommendation

Many configuration management tools are available on the market today, some of which...forins of security: Static security and dynamic (context dependent) security.

159

#### Web Server

The web `%%server%%` has static security for each page and security to maintain control of the flow between...HTML v3.2/v4.0 portion of the present

descriptions

Graphics/Images

JavaScript (client and `%%server%%`) vl.2

Active Server Page This type of web page is created dynamically at the (Non UI Framework) web server and written to the `%%requesting%%` `%%client%%`.

These pages ...is also created dynamically at (Using UI Framework) the web server and written to the `%%requesting%%` `%%client%%`, however, they make use of the ReTA User Interface Framework.

#### Tool recommendation

Microsoft Visual Studio...0

Microsoft Transaction Server 2.0

Microsoft Visual SourceSafe

Client 6.0

HP OmniBack 11 `%%Client%%`

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Me

RETASRV2 P-166 60 Windows NT Microsoft Visual SourceSafe (4002) MB Workstation 4...services support the following: managing portion of the present descriptions in multiple formats, handling of `%%client%%` `%%requests%%` for HTML pages, processing server-side

scripts, and caching web pages to improve performance.

1...describes the pre-installation suggestions and the installation steps required for setup and configuring Site %%%Server%%% 3.0 Commerce Edition.

#### Pre-histallation Suggestions

Do not install Site %%%Server%%% on a Backup Domain Controller.

Do not install Exchange %%%Server%%% on a Site %%%Server%%%. Both products are resource intensive.

Do not install Proxy %%%Server%%% on a Site %%%Server%%%. 1 5 Do not install Site %%%Server%%% on a Clustered NT System (MSCS). One can install Site %%%Server%%% onto a Windows Load Balancing Service (WLBS).

Remove Content Analyzer from Visual Studio.

Only install Site %%%Server%%% on a NTFS Drive.

Disable or Remove all Anti Virus software during entire install process.

Do not change ANY setting in HS before installing Site %%%Server%%% (On a clean/new install)..

Have at least one gig free of disk space.

Verify...

...install process.

Give your account administrative privileges on the local machine.

Installation Order for Site %%%Server%%% (This installation used with Oracle database).

Install Windows NT 4.0 %%%Server%%% or Windows NT %%%Server%%% 4.0 Enterprise Edition.

Install Windows NT Service Pack 3.

Install Internet Explorer 4.01 SP I (choose standard install).

Install Windows NT Option Pack

Install Index %%%Server%%% and the SMTP %%%Server%%% components.

Make sure to configure MTS for local (not remote) administration.

Install Visual Studio 97...

...Visual Studio 6 <optional> - Do not install Visual Studio Analyzer Component.

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Edition.

Install Site %%%Server%%% Commerce Edition (do not overwrite data in database during commerce %%%server%%% setup).

Select your DSN created earlier to create the sample database tables.

Install Visual Studio...

...0 Install MDAC 2.0 SP1.

Add the MaxBlock registry setting for MDAC.

Install Site %%%Server%%% 3.0 SP2.

Site %%%Server%%% Configuration Information Using ReTA Frameworks  
5 This portion of the description details the settings that must be in place to use Site %%%Server%%% 's Personalization and Membership Services, along with instructions on how to setup a sample site to be used in conjunction with the ReTA Frameworks.

Site %%%Server%%% Commerce Settings  
After installing Site %%%Server%%% Commerce Edition v3.0 start the Site %%%Server%%% Admin Console and perform the following tasks.

Expand the Personalization and Membership folder.  
Expand the computer name - i.e. "ZIMMERDY.

Right click on the Commerce Membership %%%Server%%% (Membership Authentication) folder and select properties.

On the "Authentication Service" tab note the TCP Port number.

Figure 60 illustrates a Commerce Membership %%%Server%%% [Membership Authentication] properties view 6000 which receives the computer name 6002, user name 6004, and...

...6006.

Right click on the Membership Directory Manager 61 00 and select properties.

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Site %%%Server%%% Commerce Sample Site Setup Instructions  
To setup sample commerce site perform the following steps.

Right click on Default Web Site 6200 in Internet Information %%%Server%%% 6202, select Task 6204Membership %%%Server%%% Mapping 6206...

I 0  
Figure 62 is an illustration of a Membership %%%Server%%% Mapping Property.

Select Intranet [Windows NT Authentication] Membership option.

1 5 Next create the sample...

...an illustration of a Create New Site Foundation Wizard. Select to create site on "Site %%%Server%%% Commerce Membership Samples Web Site" option 6302.

Follow steps in the wizard.

After Site has been created, right click on Default Web Site in Internet Information %%%Server%%%, select Task - Membership %%%Server%%% Mapping...

Change the Membership %%%Server%%% Mapping back to "Commerce Membership %%%Server%%%".

Site %%%Server%%% Commerce Site Sample - Setup

We may create the ReTA Application site under the "Member" directory... that may be used in this function and in the Session

Stop

function

Set myEventCollection

%%Server%%.CreateObject("EventHandler.AFEventCollection")

Set Session("AFEventCollection")=myEventCollection

theCurrentPage = Request.ServerVariables("SCRIPT-NAME")

'Create the ReTA AFSession Component

Set Session("AFSession") = %%%Server%%.CreateObject("Session.AFSession")

'create ReTA AFUser object - either the UserSS or UserDB Component

SiteServer--true 'change this to true for the SiteServer version

if (SiteServer--true) then

Set user = %%%Server%%.CreateObject("UserSS.AFUserSS")

else

Set user = %%%Server%%.CreateObject("UserDB.AFUserDB")

end if

theError--user.init(

'Start the Session

theError--Session("AFSession").start...

...timeout.htm")

endif

end if

Here are some of the basic technologies utilized by Site %%%Server%%% Membership, including directory services, Lightweight Directory Access Protocol (LDAP), and Active Directory Service Interfaces (ADSI...

...for database lookups (reads). Directory services provide an index of users and network resources.

Site %%%Server%%% 3.0 contains Microsoft's most recent directory service, the Membership Directory. It

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Lightweight Directory Access Protocol

Lightweight Directory Access Protocol (LDAP) is the underlying protocol used by Site %%%Server%%% Membership to communicate with the Membership Directory. LDAP was designed to be the standard Internet...

...is independent of platform, allowing directory-based information to be shared across operating systems. Site %%%Server%%% Membership implements an LDAP service for reading and writing information to the Membership Directory database...

...using the LDAP protocol.

Rather than making raw LDAP calls to the Membership Directory, Site %%%Server%%% Membership uses Active Directory Service Interfaces, better known as ADSI. ADSI provides a common standard...

...write code to one API while working with multiple directory services.

Active User Object

Site %%%Server%%% provides the Active User Object (AUO) as a single component that aggregates all of a...

...the component is created, but requires that the Web site be mapped to a Membership %%%Server%%% and that the user is authenticated.

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Authentication Choices

When one sets up a Membership...

...for the purposes mentioned above, further detail into that authentication method is discussed below.

Membership %%%Server%%% Mapping

It is important to note that Membership Authentication maps Membership groups to proxy Windows...option, which allows unrecognized users to access the site as a generic account called IUSR-[%%%server%%%name].

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. Automatic Cookie Authentication

This method provides us with a quiet and discreet authentication...

...store information on the user's computer. When this option is selected, the ISAPI (Internet %%%Server%%% Application Program Interface) filter (which was installed by the mapping of the Membership %%%Server%%%) parses the headers of the %%%client%%% and looks for the two cookies. There are three possibilities. If the cookies exist then...

...5 DPA and Clear Text / Basic Authentication can be selected simultaneously. In this case, the %%%server%%% may first attempt to issue a DPA authentication challenge. If (and only if) the %%%client%%% cannot interpret the challenge, the %%%server%%% may offer the Clear Text/Basic Authentication request.

IDC and Membership Authentication

The Integrated Direct...Transaction Server Development.

Accept default location for WWW Service install, Click Next

Accept default for %%%Transaction%%% Server (should be Administration> local).

Application may begin to install.

Install/Configure Database Connectivity

Install Oracle 8 %%%Client%%%. Oracle 8 %%%Client%%%

Install Oracle %%%Client%%% Software R 8.0 from the CD installed.

Accept default home location.

Choose Custom Installation...

9/3,K/17 (Item 15 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00777016

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTAINING DATA IN AN  
E-COMMERCE BASED TECHNICAL ARCHITECTURE  
SYSTEME, PROCEDE ET ARTICLE MANUFACTURE DE MAINTIEN DES DONNEES DANS UNE  
ARCHITECTURE TECHNIQUE DE COMMERCE ELECTRONIQUE

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2000US20546 20000728 (PCT/WO US0020546)

Priority Application: US 99364535 19990730

Designated States:

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AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CU CZ DE DK DZ EE ES FI GB  
GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK  
MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ  
VN YU ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

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(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

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Fulltext Word Count: 124205

Patent and Priority Information (Country, Number, Date):

Patent: ...\$\$\$20010208\$\$\$

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... client" and flserver" are used to refer to a computer's general role  
as a \$\$\$requester\$\$\$ of data (the \$\$\$client\$\$\$) or provider of data (the  
server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the 'server serves a passive role, i.e., it accepts  
commands from the \$\$\$client\$\$\$ and cannot \$\$\$request\$\$\$ the \$\$\$client\$\$\$  
to perform any action.

The communication model under the conventional Web environment provides a  
very...000.

Activities

NITS defines an activity as set of objects acting on behalf of a  
\$\$\$client\$\$\$'s \$\$\$request\$\$\$. Every NITS object belongs to one activity.  
The activity ID is recorded in the context...

...is going to succeed. If the component never calls SetAbort, SetComplete,

DisableCommit, or EnableCommit, the `%%transaction%%` commits when the `%%client%%` releases its last reference to the NITS component.

If the component calls SetComplete, the transaction...

...the method call returns to the client.

1 5

If the component calls DisableCommit, the `%%transaction%%` aborts when the `%%client%%` releases its last reference to the component. If the component calls EnableCommit, the `%%transaction%%` commits when the `%%client%%` releases its last reference to the component.

Implications on application design.

When designing the transaction...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, NITS may automatically commit the `%%transaction%%` when the `%%client%%` releases its object references.

Manual Transaction Control

Transactions can also be manually controlled from a base `%%client%%` by using the `%%transaction%%` context to start and commit/abort a transaction. This is particularly useful in the case...

...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the `%%client%%` `%%requests%%` an instance of the CustomerInterface of the Customer component.

Set objICustomer = CreateObject("CustomerComponent.CustomerInterface").

COM...

...creates the ContextObject 606 and returns a reference to the client. See Figure 6.

The `%%client%%` application `%%requests%%` an operation on the CustomerInterface.

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NITS invokes the operation and commits the transaction (if...

...the MTS-supplied context wrapper (the client code does not set objICustomer = null). When the `%%client%%` `%%requests%%` a new operation, the Context wrapper creates a new instance of the Customer component and...is created, MTS automatically creates a new transaction for the object, regardless of whether its `%%client%%` has a `%%transaction%%`.

Supports transactions. This value indicates that the component's objects can execute within the scope of their `%%client%%`'s `%%transactions%%`. When a new object is created, its object context inherits the transaction from the context...

...object is created, its object context is created without a transaction, regardless of whether the `%%%client%%%` has a `%%%transaction%%%`.

#### Tool Recommendation

Many configuration management tools are available on the market today, some of which...page is created dynamically at the (Non UI Framework) web server and written to the `%%%requesting%%% %%%client%%%`.

These pages are useful when dynamic data is required within the web page itself  
Microsoft...

...is also created dynamically at (Using UI Framework) the web server and written to the `%%%requesting%%% %%%client%%%`, however, they make use of the ReTA User Interface Framework.

#### Tool recommendation

Microsoft Visual Studio...services support the following: managing portion of the present descriptions in multiple formats, handling of `%%%client%%% %%%requests%%%` for HTML pages, processing server-side scripts, and caching web pages to improve performance.

ReTA...

#### Claim

... gain access to application specific database objects during application execution.

1 5

Architecture Tables

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`%%%Application%%%` Tables

Figure 55 illustrates tables and relationships required for the ReTA Phase I validation application...install Exchange Server on a Site Server. Both products are resource intensive. Do not install `%%%Proxy%%% %%%Server%%%` on a Site `%%%Server%%%`. Do not install Site `%%%Server%%%` on a Clustered NT System (MSCS). One can install Site `%%%Server%%%` onto a Windows Load Balancing Service (WLBS). Remove Content Analyzer from Visual Studio. Only install Site `%%%Server%%%` on a NTFS Drive. 5 Disable or Remove all Anti Virus software during entire install process. Do not change ANY setting in IIS before installing Site `%%%Server%%%` (On a clean/new install). Have at least one gig free of disk space. Verify...

...install process. Give your account administrative privileges on the local machine. Installation Order for Site `%%%Server%%%` (This installation used with Oracle database). Install Windows NT 4.0 `%%%Server%%%` or Windows NT `%%%Server%%%` 4.0 Enterprise Edition. Install Windows NT Service Pack 3. Install Internet Explorer 4.01 SP I (choose standard install).

Install Windows NT Option Pack

Install Index `%%%Server%%%` and the SMTP `%%%Server%%%` components. Make sure to configure MTS for local (not remote) administration. Install Visual Studio 97...

...System DSN to point to the database that may contain the sample tables.



Install Site %%%Server%%% - Do not create new membership instances before installing Commerce Edition. Install Site %%%Server%%% Commerce Edition (do not overwrite data in database during commerce %%%server%%% setup).

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step). Install MDAC 2.0 SPI. Add the MaxBlock registry setting for MDAC.

Install Site %%%Server%%% 3.0 SP2.

Site %%%Server%%% Configuration Information Using ReTA Frameworks

This portion of the description details the settings that must be in place to use Site %%%Server%%% 's Personalization and Membership Services, along with instructions on how to setup a sample site to be used in conjunction with the ReTA Frameworks.

Site %%%Server%%% Commerce Settings

After installing Site %%%Server%%% Commerce Edition v3.0 start the Site %%%Server%%% Admin Console and

perform the following tasks:

Expand the Personalization and Membership folder. Expand the computer name - i.e. "ZIMMERD3". Right click on the Commerce Membership %%%Server%%% (Membership Authentication) folder and select properties. On the "Authentication Service" tab note the TCP Port number. Figure 60 illustrates a Commerce Membership %%%Server%%% [Membership Authentication] properties view 6000 which receives the computer name 6002, user name 6004, and...

...6102. Make sure the Port number 6104 here matches the one from step # 4.

Site %%%Server%%% Commerce Sample Site Setup Instructions

To setup sample commerce site perform the following steps.

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Right click on Default Web Site 6200 in Internet Infon-nation

%%Server%% 6202, select Task 6204Membership %%%Server%%% Mapping

6206... Figure 62 is an illustration of a Membership %%%Server%%% Mapping Property. Select Intranet [Windows NT Authentication] Membership option.

Next create the sample site. Right...

...an illustration of a Create New Site Foundation Wizard. Select to create site on "Site %%%Server%%% Commerce Membership Samples 5 Web Site" option

6302. Follow steps in the wizard. After Site has been created, right

click on Default Web Site in Internet Infort-nation %%%Server%%, select

Task - Membership %%%Server%%% Mapping... Change the Membership

%%Server%% Mapping back to "Commerce Membership %%%Server%%".

Site %%%Server%%% Commerce Site Sample - Setup

We may create the ReTA Application site under the "Member" directory...

...that may be used in this function and in the Session-Stop

function

Set myEventCollection

%%Server%%.CreateObject("EventHandler.AFEventCollection")

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theCurrentPage = Request.ServerVariables("SCRrPT-NAME")

'Create the ReTA AFSession Component

Set Session("AFSession") = %%%Server%%.CreateObject("Session.AFSession")

'create ReTA AFUser object - either the UserSS or UserDB Component

SiteServer--true 'change this to true for the SiteServer version

if (SiteServer--true) then

Set user = %%%Server%%.CreateObject("UserSS.AFUserSS")

else

Set user = %%%Server%%.CreateObject("UserDB.AFUserDB")

end if

```
1 5 theError=user.init(
'Start the Session
theError--Session...ExamplePages/timeout.htm")
endif
endif
```

Here are some of the basic technologies utilized by Site %%%Server%%  
Membership, including directory services, Lightweight Directory Access  
Protocol (LDAP), and Active Directory Service Interfaces (ADSI...

...for database lookups (reads). Directory services provide an index of  
users and network resources. Site %%%Server%% 3.0 contains Microsoft's  
most recent directory service, the Membership Directory. It is the...

...All directory services use LDAP as their communicating protocol. In the  
future Microsoft WindowsO 2000 %%%Server%% may implement the  
much-talked-about Active Directory, which may take the Membership  
Directory to...

...using the LDAP protocol. Rather than making raw LDAP calls to the  
Membership Directory, Site %%%Server%% Membership uses Active Directory  
Service Interfaces, better known as ADSI. ADSI provides a common standard

...  
...write code to one API while working with multiple directory services.  
Active User Object  
Site %%%Server%% provides the Active User Object (AUO) as a single  
component that aggregates all of a...

...the component is created, but requires that the Web site be mapped to a  
Membership %%%Server%% and that the user is authenticated.  
Membership Directory Authentication  
Authentication Choices  
When one sets up...

...for the purposes mentioned above, further detail into that  
authentication method is discussed below:  
Membership %%%Server%% Mapping  
It is important to note that Membership Authentication maps Membership  
groups to proxy Windows...

...option, which allows unrecognized users to access the site as a generic  
account called IUSR-[%%server%%-name].

1 Automatic Cookie Authentication . This method provides us with a quiet  
and discreet authentication...M. ro 1 1 MM row,  
Area\* Project or Area assigned to complete the change %%%request%%:  
Account Management  
%%Client%% Services  
Delivery Systems  
Insurance/Corporate Systems  
Network Services  
Production Services  
Technical Services  
Category\* The classification...Ver. 5.0  
Raptor Firewall 5.0 for NT  
CyberGuard Firewall Version 3.0  
Microsoft %%%Proxy%% %%%Server%% Ver. 2.0  
Trusted Information Gauntlet Ver 3.2

The products selected above are recognized...

...stage. Figure 121 illustrates the selected products: Check Point Firewall for NT 12100 and Microsoft %%%Proxy%%% %%%Server%%% Version 2.0 12102.

5

Check Point's Firewall for NT: Maintaining a high presents...

...considered from a number of different perspectives.

1 5 0 Support network address translation

Traffic %%%control%%% by source/destination address, %%%application%%%, etc.

Alert generation for breaches

\* Encryption support

e Authentication support

0 Centralized administration of multiple...Furthermore, circuit proxies are not transparent and may require modifications to the usage of the %%%client%%% and %%%server%%%. For this reason, circuit proxies are typically 1 5 not used today.

Application Gateway/Proxy More - Finer X Less - Less granular

Outbound %%%control%%% over the %%%application%%% %%%control%%% over service

service; can filter on actual

commands within the

protocol

Security - Inbound -- Slightly more...

9/3,K/18 (Item 16 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00777012

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR PROVIDING AN INTERFACE BETWEEN A FIRST SERVER AND A SECOND SERVER.

SYSTEME, PROCEDE ET ARTICLE MANUFACTURE DESTINES A UNE ARCHITECTURE DE COMMERCE ELECTRONIQUE BASEE SUR JAVA

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Application: WO 2000US20561 20000728 (PCT/WO US0020561)

Priority Application: US 99364531 19990730

Designated States:

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV  
MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
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Filing Language: English

Fulltext Word Count: 126924

Patent and Priority Information (Country, Number, Date):

Patent: ...%%20010208%%

Fulltext Availability:

Detailed Description

Detailed Description

... client" and lserver" are used to refer to a computer's general role as a %%requester%% of data (the %%client%%) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the %%client%% and cannot %%request%% the %%client%% to perform any action.

The communication model under the conventional Web environment provides a very...and client-side performance is 1 0 improved. Unlike HTML, Java supports the notion of %%client%%-side validation, offloading appropriate processing onto the client for improved performance. Dynamic, real-time Web...000.

Activities

NITS defines an activity as set of objects acting on behalf of a %%client%%'s %%request%%. Every NITS object belongs to one activity. The activity ID is recorded in the context...

...is going to succeed. If the component never calls SetAbort, SetComplete, DisableCommit, or EnableCommit, the %%transaction%% commits when the %%client%% releases its last reference to the MTS component.

If the component calls SetComplete, the transaction...

...soon as the method call returns to the client.  
If the component calls DisableCommit, the %%transaction%% aborts when the %%client%% releases its last reference to the component. If the component calls EnableCommit, the %%transaction%% commits when the %%client%% releases its last reference to the component.

Implications on application design.

45

SUBSTITUTE SHEET (RULE...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, NITS may automatically commit the %%transaction%% when the %%client%% releases its object references.

Manual Transaction Control

Transactions can also be manually controlled from a base %%client%% by using the %%transaction%% context to start and commit/abort a transaction. This is particularly useful in the case...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the `%%client%%` `%%requests%%` an instance of the `CustomerInterface` of the `Customer` component.

Set `objICustomer = CreateObject("CustomerComponent.CustomerInterface")`.

46...

...creates the `ContextObject` 606 and returns a reference to the client. See Figure 6.

The `%%client%%` application `%%requests%%` an operation on the `CustomerInterface`.

MTS invokes the operation and commits the transaction (if any...

...the MTS-supplied context wrapper (the client code does not set `objICustomer = null`). When the `%%client%%` `%%requests%%` a new operation, the Context wrapper creates a new instance of the `Customer` component and...

...run the risk of running in the wrong context. `CreateObject` can be used from the `%%client%%` to instantiate any MTS object. `CreateInstance`.

It is the interface method of the context object...completed their-work and should be  
--deactivated when the currently executing method  
, returns to the `%%client%%`. -This method may call the  
`setComplete` method of MTS. (See MTS portion of  
the present...is configured to reside nearly  
omponent irely on an individual developer workstation. Web and  
Test `%%application%%` services are running locally for presentation and  
business logic. Architecture components are accessed via a...This value  
indicates that the component's objects can execute within the scope of  
their `%%client%%`'s `%%transactions%%`. When a new object is created,  
its object context inherits the transaction from the context of the  
client. If the `%%client%%` does not have `%%transaction%%`, the new  
context is also created without one.

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SUBSTITUTE SHEET (RULE 26)

Does not...

...object is created, its object context is created without a transaction, regardless of whether the `%%client%%` has a `%%transaction%%`.

#### Tool Recommendation

Many configuration management tools are available on the market today, some of which...

...team. It is important to note that the development stages represent the lifecycle of an `%%application%%`, not data. Within each development stage, there can be multiple data sets. For example, within...used to design, build, and test the system.

## Analysis & Design

The BI Methodology has several application development routes that apply to different development scenarios. Routes currently exist in the methodology for...page is created dynamically at (Non UI Framework) the web server and written to the requesting client. These pages are useful when dynamic data is required within the web page itself  
Microsoft...

...is also created  
(Using UI Framework) dynamically at the web server and written to the requesting client, however, they make use of the ReTA User Interface Framework.

Tool recommendation  
Microsoft Visual Studio...

...Tool recommendation  
Visual Studio 6.0  
Rational Rose 98  
1 5 Test  
Testing applications (client/server or NetCentric) remains a complex task because of the large number of integrated components involved...of the present description resolution.

Tool Recommendation  
SIR Management Tools help track each system investigation request from problem detection through portion of the present description resolution. During the testing phases of...

...is a Microsoft Access based tool that has been used on various component and client/server engagements. It provides basic functionality of entering, modifying and reporting of architecture and application problems...services support the following: managing portion of the present descriptions in multiple formats, handling of client requests for HTML pages, processing server-side scripts, and caching web pages to improve performance.

ReTA...option, which allows unrecognized users to access the site as a generic account called IUSR-[server-name].

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SUBSTITUTE SHEET (RULE 26)

. Automatic Cookie Authentication  
This method provides us with a...

...store information on the user's computer. When this option is selected, the ISAPI (Internet Server Application Program Interface) filter (which was installed by the mapping of the Membership Server) parses the headers of the client and looks for the two cookies. There are three possibilities. If the cookies exist then...Considerations DPA and Clear Text / Basic Authentication can be selected simultaneously. In this case, the server may first attempt to issue a DPA authentication challenge. If (and only if) the client cannot interpret the challenge, the server may offer the Clear Text/Basic Authentication request.

TDC and Membership Authentication  
The Integrated Direct...Manager  
Add a virtual directory where the application may start.

On the virtual directory enable %%%Server%%% Side ASP script debugging  
and %%%Client%%% Side script debugging.

On the virtual directory, set directory security for Basic  
Authentication only.

Configure...the present description installed in  
step 5 for assistance.

Update MTS Settings for Oracle 8 %%%client%%% compatibility Currently,  
MTS  
Open REGEDIT and within the v2.0 installation  
LOCAL-MACHINE  
SOFTWARE key modify the is based on using  
Microsoft  
Transaction %%%Server%%%  
Local Computer  
My Computer Oracle 7.3 for  
entries: Oracle  
Change the OracleSqlLib to "sqllib80...

...the ensure your oracle Tools project within VSS) to your C:  
Program Files  
A4ts folder. %%%client%%% connection Copy over the existing. exe (version  
7.3 compatible). is transactional.

Run the TestOraclexaConfig...

9/3,K/19 (Item 17 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00777011 \*\*Image available\*\*  
A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR A CODES TABLE FRAMEWORK  
DESIGN IN AN E-COMMERCE ARCHITECTURE  
SYSTEME, PROCEDE ET ARTICLE FABRIQUE POUR LA CONCEPTION D'UNE STRUCTURE DE  
TABLES DE CODES DANS UNE ARCHITECTURE DE COMMERCE ELECTRONIQUE  
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AC PROPERTIES BV, Parkstraat 83, NL-2514 JG 'S Gravenhage, The Hague, NL,  
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Palo Alto, CA 94303, US,  
Patent and Priority Information (Country, Number, Date):  
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Application: WO 2000US20705 20000728 (PCT/WO US0020705)  
Priority Application: US 99364491 19990730

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AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
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(EA) AM AZ BY KG KZ MD RU TJ TM

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Patent and Priority Information (Country, Number, Date):

Patent: ...###20010208###

Fulltext Availability:

Detailed Description

Detailed Description

... client" and lserver" are used to refer to a computer's general role as a ###requester### of data (the ###client###) or provider of data (the server). Under the Web environment, Web browsers reside in clients...  
...above interaction, the server serves a passive role, i.e., it accepts commands from the ###client### and cannot ###request### the ###client### to perform any action.

The communication model under the conventional Web environment provides a very...1000.

Activities

MTS defines an activity as set of objects acting on behalf of a ###client###'s ###request###. Every MTS object belongs to one activity. The activity ID is recorded in the context...

...is going to succeed. If the component never calls SetAbort, SetComplete, DisableCommit, or EnableCommit, the ###transaction### commits when the ###client### releases its last reference to the MTS component.

If the component calls SetComplete, the transaction...

...the method call returns to the client.

1 5

If the component calls DisableCommit, the ###transaction### aborts when the ###client### releases its last reference to the component. If the component calls EnableCommit, the ###transaction### commits when the ###client### releases its last reference to the component.

DWIications on qpj2lication design.

When designing the transaction...

...transaction by calling SetAbort or disabled commitment by calling DisableCommit, MTS may automatically commit the ###transaction### when the ###client### releases its object references.



## Manual Transaction Control

Transactions can also be manually controlled from a base `%%%client%%%` by using the `%%%transaction%%%` context to start and commit/abort a transaction. This is particularly useful in the case...

...activation.

The following method call trace illustrates JIT activation.

The client application starts, and the `%%%client%%%` `%%%requests%%%` an instance of the `CustomerInterface` of the `Customer` component.

Set `objICustomer = CreateObject("CustomerComponent.CustomerInterface...`

...creates the `ContextObject` 606 and returns a reference to the client. See Figure 6.

The `%%%client%%%` application `%%%requests%%%` an operation on the `CustomerInterface`.

46

MTS invokes the operation and commits the transaction (if...

...the MTS-supplied context wrapper (the client code does not set `objICustomer = null`). When the `%%%client%%%` `%%%requests%%%` a new operation, the Context wrapper creates a new instance of the `Customer` component and...from the original. If `CreateInstance` is used, the new object's context shares the same `%%%transaction%%%` as the invoking one.

Using `New` is only a problem in the following scenario. The...the repositories.

The change control process may include identifying users authorized to implement the change `%%%requests%%%`, defining criteria for implementing the change `%%%requests%%%`, allowing evaluation of the

129

change requests by the users based on the criteria, and...is created, MTS automatically creates a new transaction for the object, regardless of whether its `%%%client%%%` has a `%%%transaction%%%`.

Supports transactions. This value indicates that the component's objects can execute within the scope of their `%%%client%%%`'s `%%%transactions%%%`. When a new object is created, its object context inherits the transaction from the context...

...object is created, its object context is created without a transaction, regardless of whether the `%%%client%%%` has a `%%%transaction%%%`.

## Tool Recommendation

Many configuration management tools are available on the market today, some of which...every element on the page. The server does not maintain a session connection with the `%%%client%%%` nor save any information between `%%%client%%%` exchanges (i.e., web page submits or requests). Each HTTP exchange is a completely independent...page is created dynamically at the (Non LTI Framework) web server and written to the `%%%requesting%%%` `%%%client%%%`.

These pages are useful when dynamic data is

required within the web page itself.

Microsoft...

...is also created dynamically at  
(Using UI Framework) the web server and written to the %%%requesting%%  
%%client%%,  
however, they make use of the ReTA User Interface  
Framework.

Tool recommendation

Microsoft Visual Studio...services support the following: managing  
portion of the present descriptions in multiple formats, handling of  
%%client%% %%%requests%% for HTML pages, processing server-side  
scripts, and caching web pages to improve performance.

ReTA...in procedural languages. This means that control is passed from  
the main logic of a %%%program%% to the called function, with  
%%control%% returning to the main %%%program%% once the called  
function completes its task.

ReTA implementation

ReTA implements RPC services through Microsoft...install Exchange Server  
on a Site Server. Both products are resource intensive.

Do not install %%%Proxy%% %%%Server%% on a Site Server.

Do not install Site Server on a Clustered NT System (MSCS...Transaction  
Server Development.

Accept default location for WWW Service install; Click Next  
Accept default for %%%Transaction%% Server (should be Administration>  
local).

Application may begin to install.

Install/Configure Database Connectivity  
IQ...

9/3,K/20 (Item 18 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00766074 \*\*Image available\*\*  
SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR GENERATING AN  
INVENTORY-CENTRIC DEMOGRAPHIC HYPER-CUBE  
SYSTEME, METHODE ET PROGRAMME INFORMATIQUE PERMETTANT DE PRODUIRE UN  
HYPER-CUBE DEMOGRAPHIQUE CENTRE SUR UN INVENTAIRE

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200079449 A2 %20001228% (WO 0079449)

Application: WO 2000US15823 20000609 (PCT/WO US0015823)

Priority Application: US 99328898 19990609; US 99379587 19990824

Designated States:

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AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE  
GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK  
MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU  
ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

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Patent and Priority Information (Country, Number, Date):

Patent: ...%20001228%

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... service providers (ISP) often use proxy servers and NCSs.

Proxy servers can shield some Internet %requests% by a %client% host from the rest of the Internet. For example, proxy servers often cache, i.e. and can save communications costs for the ISP. When the web %client% %requests% access to a cached web page, the cached web page is accessed from the proxy...

...for which that state is valid, i.e., the domain of the cookie. Any future %requests% made by the %client% which fall in that range, i.e. that domain, can include a transmittal of the...a proxy log including a proxy log data record having a field including a location %requested% by the %client% user, a first IP address of the %client% user making the %request%, an action %requested% by the %client% user, or a time of the request; accessing an IP address assignment log including an...

...can include accessing user action records from the virtual cookie, including a userID of the %client% user, a location %requested% by the %client% user, or a userID of the client user; accessing a user action database, or adding...domain and path where the Internet user performed the action, i.e., the web page %requested%. For example, a %client% user identified as User395, could have looked at (i.e. a page view action) a grocery stores, and corporations may desire to analyze large amounts of data tracking %client% user %requests% or purchasing. Users 1 1 0 can also include companies seeking to perform targeting promotions...the same or different proxy servers, or other servers.

Proxy logs 202a-c can contain %requests% from user %client%

machines, such as, e.g., a subscriber. It will be apparent to those skilled in...

...The request can contain the requested URL (location), the IP address or number of the %%%client%%% user making the %%%request%%%, and the time that the request was made. Also, actions %%%requested%%% by a %%%client%%% user can also be captured which will usually be a web page pageview, although some...log 202. Proxy log 202 in a typical environment can log a location that a %%%client%%% attempts to %%%request%%%, e.g., a URL address. Proxy log 202 can also include a log of the...issues associated with analysis of users caused by using proxy servers.

By responding to a %%%client%%% 's %%%request%%% with a cached version of a requested web page, the proxy server shields the %%%client%%% 's %%%request%%% from the rest of the Internet. Efforts have been taken to get around the problems...through proxy server 148, all traffic can be tracked by virtual cookie 214a. Conventionally, HTTP %%%client%%% 224 would %%%request%%% websites from HTTP servers 226 and 228, as represented by lines 230-232 and 236...by computer robots can be logged as activity, but such requests are not really typical %%%client%%% user %%%requests%%% of the sort that are sought to be tracked. By analyzing actions, atypical user data...

Claim

... ACTION

-START/END TIME 260 -IP ADDR.

204 JIME

I I I 1 202

TRANSMISSION %%%CONTROL%%% %%%PROGRAM%%%/ INTERNET  
PROTOCOL (TCP/IP) NETWORK PROTOCOL STACK

256

LOW LEVEL PROTOCOL DRIVERS

254

DYNAMIC ACCESS...

...0@

290 292

SERVER SERVER

298

GLOBAL PROFILE

SERVER

USER PROFILE@1@281

158

INTERNOET

%%%PROXY%%%

%%%SERVER%%% 29&@ 294-@, 291-@, 293-@, @--295 -@-297 e-@285 ,@-283

146

- - - - -

SUBSCRIBER

IP ADDRESS

288@

TEMPORARILY

ASSIGNED

%%%CLIENT%%%

-IP ADDRESS PERMANENT ly BAL

GLOBAL ASSIGNED COOKIE

COOKIE

```

7
287
289
86b',
@-299 86a
ER
.....
FiGm 2D
Illult SHEU RULE 92 BS
/20
220
'40@
226 228
%%%SERVER%%% %%%SERVER%%%
240
UNIVERSAL PROFILE
%%%SERVER%%%
214b@H VIRTUAL COOKIE
148 IN@ERN@T 158
%%%PROXY%%% %%%SERVER%%%
PROXYLOG
IP ADDR, LOCATION, 232'@N@ .@@238
202--` ACTION,
TIME OF REQUEST 244 246 230- -.--@236
214a COOKI@j
NETWORK COMMUNICATIONS
%%%SERVER%%%
IPADDRESSASSIGNMENT
LOG .o,@242 t224
USER ID, IPADDR,
START/END TIME
204 %%%CLIENT%%%
-IP ADDRESS PERMANENTLY
SUBSCRIBER ASSIGNED (STATIC)
@@146
-IPADDRESS
TEMPORARILY
ASSIGNED
(DYNAMIC) 222a
222b FlGa 2E...

...1=0 INFORMATION
;7n t I
is 806 @@
rx 804 -N@ ACTIVITY P. REPORT
MONITOR %%%SERVER%%%
LOCATION
I I INFORMATION I I
FIGI 8
Cox 902 -N,
CONTROL PANEL
E4 904
1...

```

9/3,K/21 (Item 19 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT

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00764220    \*\*Image available\*\*

NETWORK PROXY FOR DEVICES WITH LIMITED RESOURCES

RESEAU MANDATAIRE DESTINE A DES DISPOSITIFS A RESSOURCES LIMITEES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200077635 A1 %%%20001221%% (WO 0077635)

Application: WO 2000US16080 20000613 (PCT/WO US0016080)

Priority Application: US 99332031 19990614

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AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

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Fulltext Word Count: 14925

Patent and Priority Information (Country, Number, Date):

Patent: ...%%20001221%%

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... registry to enable a client program to access the service. and the  
service receives a %%%request%%% from the %%%client%%% program for  
accessing the service.

In accordance with methods consistent with the present invention, a...  
12(m) may, as "compute servers," perform certain processing operations in  
response to a remote %%%request%%% therefor from a %%%client%%% computer  
I I (n), and return the results of the processing to the %%%requesting%%%  
5 %%%client%%% computer I I (n) for use by them (that is, the  
%%requesting%% %%%client%%% computers I I (n)) in their subsequent  
processing. In either case, the server computers may...

...mass storage and network interface elements for receiving and processing  
retrieval, storage or remote processing %%%requests%%% from the  
%%client%%% computers, and generating responses thereto. It will be  
appreciated a client computer II (n) may...Internet. The server computer  
12(m) which implements the remote method, in response to a %%%request%%%

from the `%%client%%` computer I I (n) will provide stub class instance 30 which the client computer I...

...the identification of a server computer 12(m) which can process the method to the `%%requesting%%` `%%client%%` computer I I (n) and other information which may be helpful in communicating with the...stub. For example, a smart proxy may contain code to cache information, so if a `%%client%%` `%%requested%%` it again, instead of going back to the server to get the information, it may...  
...I I (n) may request one or more services from the lookup service 400. The `%%client%%`'s `%%request%%` comes in the form of a specific service ID 402, a type of stub 404...

...to obtain a stub 404 for the service to be obtained.

Upon receipt of the `%%request%%` from the `%%client%%` computer I I (n), the control 28 in the 1 5 server 12(m) searches...

...on the client computer (step 612). If more than one stub was located matching the `%%client%%`'s `%%request%%` (step 61 0), in one embodiment consistent with the present invention, any one of the stubs is returned (step 616). In another implementation where the `%%client%%` `%%requests%%` more than one service, the server 12(m) returns the requested number of the stubs...location identifier and the object type in the lookup service. In this case, when the `%%client%%` program `%%requests%%` the object from the lookup service, RMI retrieves the entry in the lookup service, containing...

...1004). Services in the lookup service are utilized on a lease basis, meaning that the `%%client%%` who is `%%requesting%%` use of the service requests its use for a particular time period, and the service...

#### Claim

... the service registry to enable a client program to access the service; and receiving a `%%request%%` from the `%%client%%` program for accessing the service.

11 The method of claim 10 wherein the receiving step...

...step includes:  
requesting the network proxy to access the orphan service on behalf of the `%%client%%` program, wherein the `%%request%%` is communicated using the first protocol;  
converting the request into a format suitable to the...the service registry to enable a client program to access the service; and receiving a `%%request%%` from the `%%client%%` program for accessing the service.

34 The computer-readable medium of claim 3' ) wherein the...

...registration of the orphan service; and means for accessing the orphan service by the client `%%program%%` using the registration. -----

FIG, I `%%CONTROL%%`

```

STUB 19
CLASS
INSTANCES
30
UNINSTANT.
CLASSES CLASS
CLASS LOADER INSTANCES
23 21 22
STUB...1 F
The service is now
registered in the lookup 506
service
/13
FIGs 6
%%%Client%%% sends a
service %%%request%%% to a @@600
server
I
Server receives the @@602
request
I
Server searches for
the...

...their
Server returns the urned attributes, up to the
612,-r@ matching stub to the %%%requested%%% number
%%%client%%%
0
Server returns
any one of the -J@ 616
10 matching stubs
712--j@ Me...

...etwork E-C
JVM RMI L
5
738 740
709
Input Video 708
Device Display
%%%Proxy%%% %%%Server%%%
722-,j@ Memory econdary
726 -.j@ Network Proxy Storage
728,-j@ Protocol Stack
730--j...

...Proxy Receives 804
Code and Object Type
I F
Network Proxy Registers 806
Orphan Service
%%%Client%%%
Retrieves Object
IF
%%%Client%%% Communicates 81 0
With Orphan Service

```



I F  
C  
Lnd  
FIGa 8  
/13  
e n...

...F  
Network Proxy 904  
Responds  
I F  
Network Proxy  
Registers Orphan @@906  
Service  
I F  
%%%Client%%% Accesses 908  
Object  
n  
FIGm 9  
/13  
eg  
Orphan Service Requests 1002  
Use of Another...

9/3,K/22 (Item 20 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00762747 \*\*Image available\*\*  
A CELLULAR COMMUNICATION TERMINAL, A METHOD AND A SYSTEM FOR ACCESSING  
SERVERS  
TERMINAL DE COMMUNICATION CELLULAIRE, PROCEDE ET SYSTEME PERMETTANT  
D'ACCEDER AUX SERVEURS  
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Application: WO 2000IB826 20000607 (PCT/WO IB0000826)  
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AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM  
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Patent and Priority Information (Country, Number, Date):

Patent: ...###20001214###  
Fulltext Availability:  
Claims

#### Claim

... through the WAP gateway 760, and is thought of as a web server delivering content ###requested### by a ###client###. Like an Internet web browser, the WTA user-agent 700 uses URLs to reference content...initiates a request, 1, by sending a PUSH to perform a diagnostic test of the ###client###. The ###request### is first sent to a server, which accepts the request and sends an indication to...

...comprise' a URL of the server and a dial string. The linking means forwards the ###request### to the ###client### via one-way SIVIS, 3. If the ###client### is engaged in a call the request is queued. Otherwise, the ###client### automatically performs an authentication of the request and informs the linking means that a data call is required, 4. The linking means verifies the 5 ###client### and establishes a data connection to the ###server###, 5. When the data call is established, the ###client### automatically performs a PULL request for the provisioning information, 6. The ###server### authenticates the ###client### and sends a PUSH command to perform the diagnostic test, and correct any eventual errors, 7. The PUSH command is executed in the ###client### to perform the diagnostic test and sends the result of the operation to the ###server### using PULL, 8 The server verifies the result, and then form a correction request for ...

...any possible errors, and sends this to the client as an PUSH reply, 9. The ###client### executes the correction ###request###, and sends the result of the operation to the server using PULL, 10. The server replies with a disconnect ###request### to the ###client###, 11. The server updates the originating network element that the diagnostic test has been performed...

9/3,K/23 (Item 21 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00507921 \*\*Image available\*\*  
IMPLEMENTING FORCE FEEDBACK OVER THE WORLD WIDE WEB AND OTHER COMPUTER NETWORKS  
MISE EN OEUVRE DES FORCES DE RETROACTION VIA LE WEB ET D'AUTRES RESEAUX INFORMATIQUES

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IMMERSION CORPORATION,

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CHANG Dean,

TAN Sian,

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Patent and Priority Information (Country, Number, Date):

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Application: WO 99US2322 19990202 (PCT/WO US9902322)

Priority Application: US 9873518 19980203

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Publication Language: English

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Patent and Priority Information (Country, Number, Date):

Patent: ...\$\$\$19990805\$\$\$

Fulltext Availability:

Detailed Description

Detailed Description

... force effects are output when a user-controlled cursor interacts with a force web page \$\$\$object\$\$\$. A force \$\$\$control\$\$\$ \$\$\$program\$\$\$ running on the client machine can detect whether the cursor is contacting one of the...

...force feedback information to the web page. The client can perform the preprocessing, or a \$\$\$proxy\$\$\$ \$\$\$server\$\$\$ can preprocess the web page before sending the web page to the \$\$\$client\$\$\$ . In other embodiments, both generic effects and authored effects can be provided for a particular...server machine 18 then sends a web page 32 in HTML format back to the \$\$\$requesting\$\$\$ \$\$\$client\$\$\$ machine where it is "cached" in the memory (typically the RAM, hard disk, or a...that receives Hypertext Transport Protocol (HTTP, the underlying communication protocol of the World-Wide Web) \$\$\$requests\$\$\$ from a \$\$\$client\$\$\$ computer and performs that request on its behalf. Proxy servers are often used to allow...

...proxy server 400 connected to the Internet 402. This proxy server 400 accepts all HTTP \$\$\$requests\$\$\$ from \$\$\$client\$\$\$ computers, such as \$\$\$requests\$\$\$ to receive particular web pages. For example, a host computer 404 is to receive a...

9/3,K/24 (Item 22 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00482134

SOURCE ADDRESS DIRECTED MESSAGE DELIVERY

REMISE DE MESSAGE EN FONCTION DE L'ADRESSE D'ORIGINE

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Inventor(s):

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Patent and Priority Information (Country, Number, Date):  
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Priority Application: US 97929162 19970912  
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CA IL JP MX NO AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
Publication Language: English  
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Patent and Priority Information (Country, Number, Date):  
Patent: ...%19990318%  
Fulltext Availability:  
Detailed Description

#### Detailed Description

... 46)  
representing respectively: first field 48a--source IP address (or source host name) 14 of %requesting% %client% 10; second field 48b--destination IP address (or destination host name) 30; and third field...the world wide web of the Internet, using some variant of the HTTP protocol, Java %application%, ActiveX %control%, or another form of %program% or executable content sent over the public network, web application 42 may typically receive only a %requesting% %client%'s source address 14, and possible certain other identifying information sent during the session (such...  
...name and one-time password, for example). The initial HTTP session is stateless, so the %requesting% %client% 10, while having a persistent source address 14, will not necessarily have a persistent source...for that address (from, for example, another employee calling into server 18 from the same %proxy% %server% as another employee) is first deleted. The deletion poses no difficulties, though, for proper message...  
? save yogesh  
SearchSave "YOGESH" store